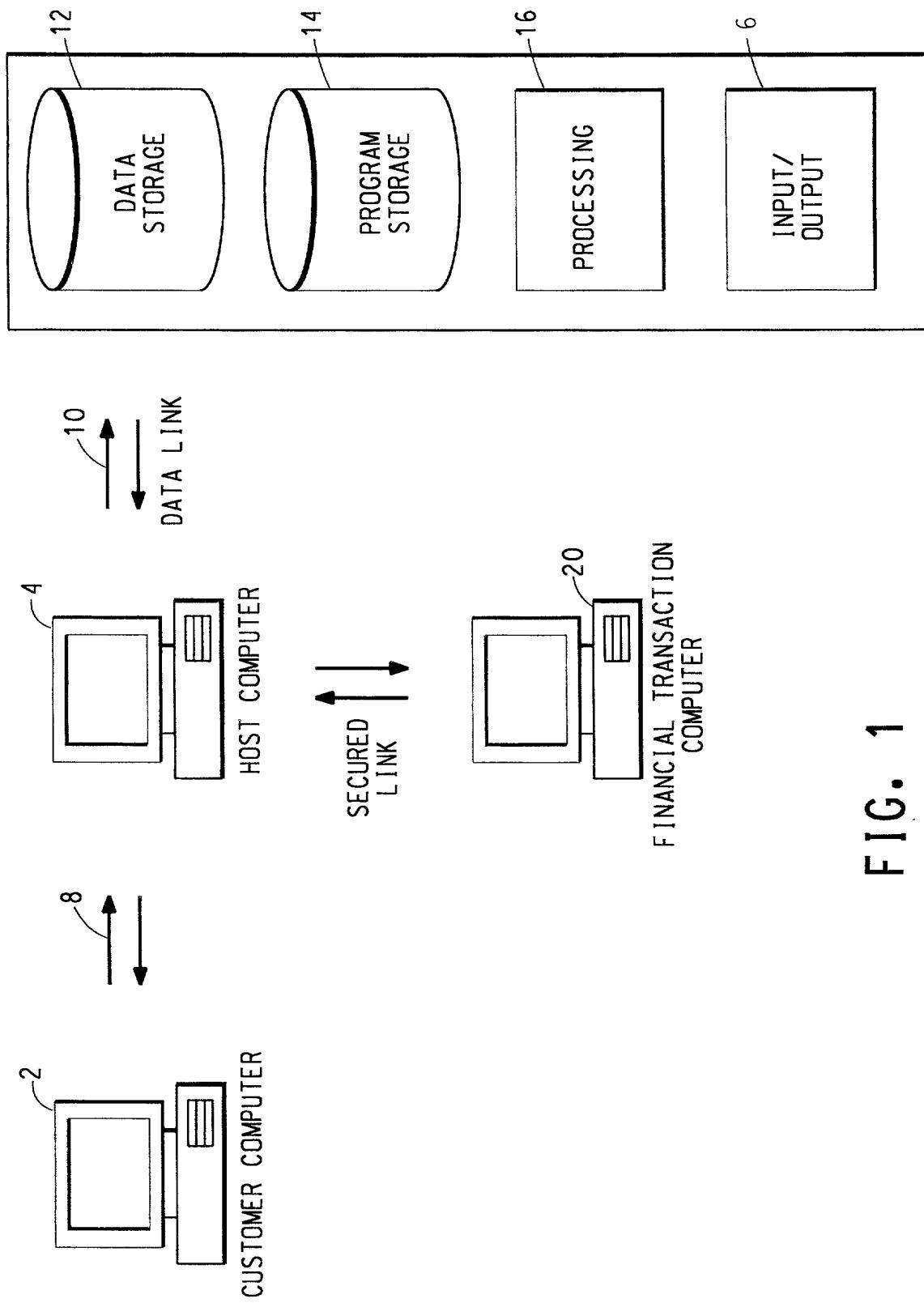


**FIG. 1**



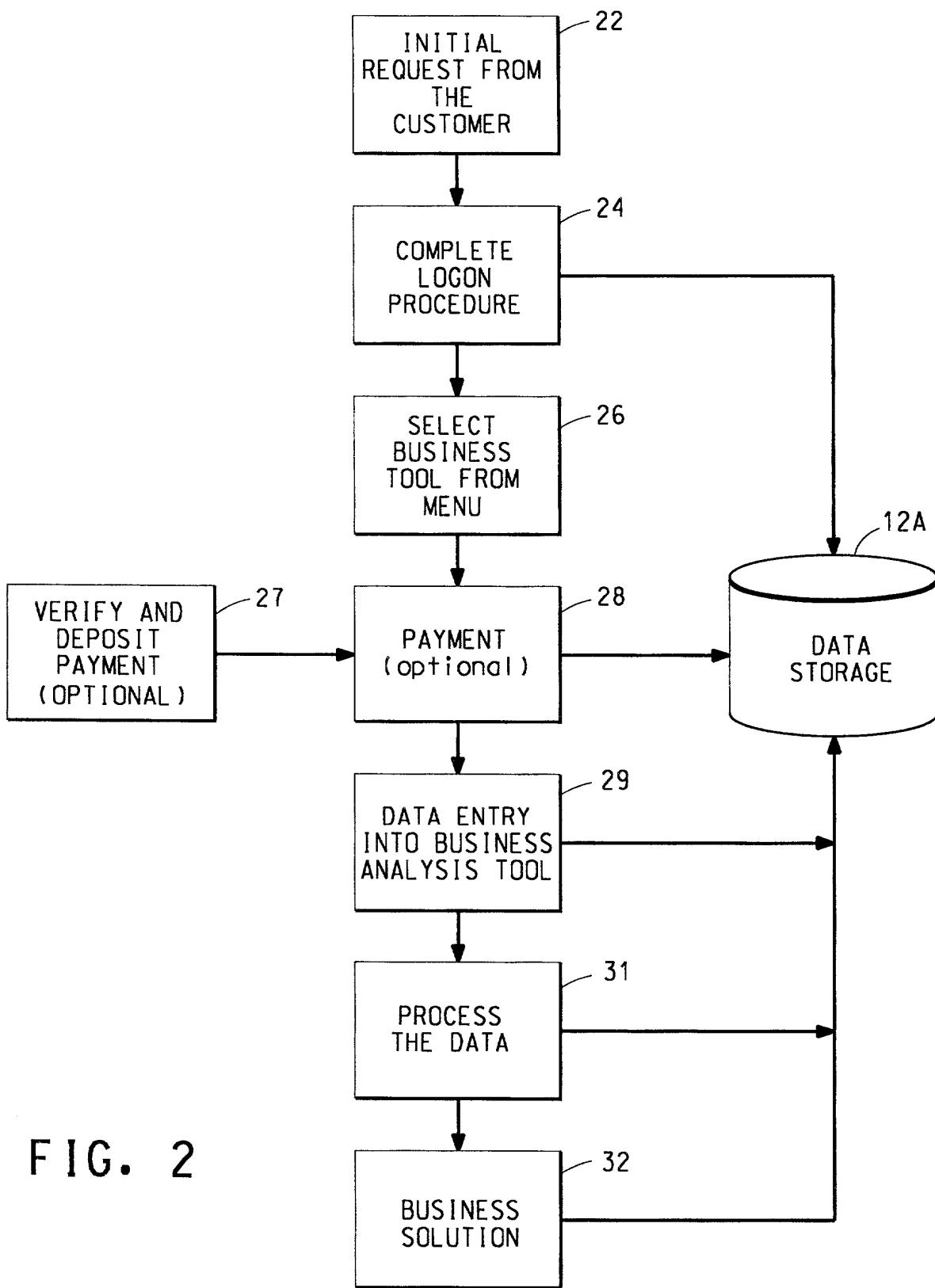
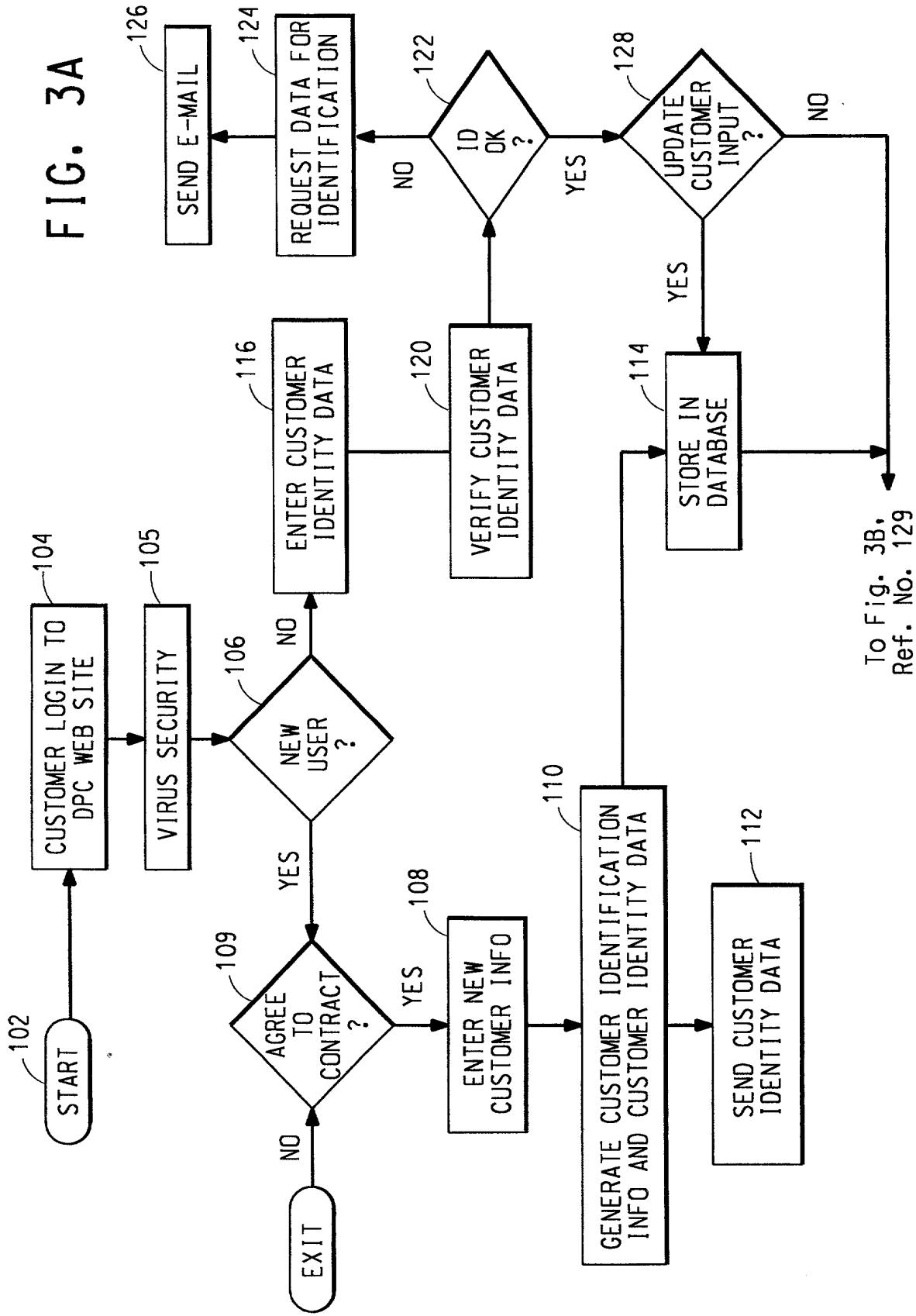
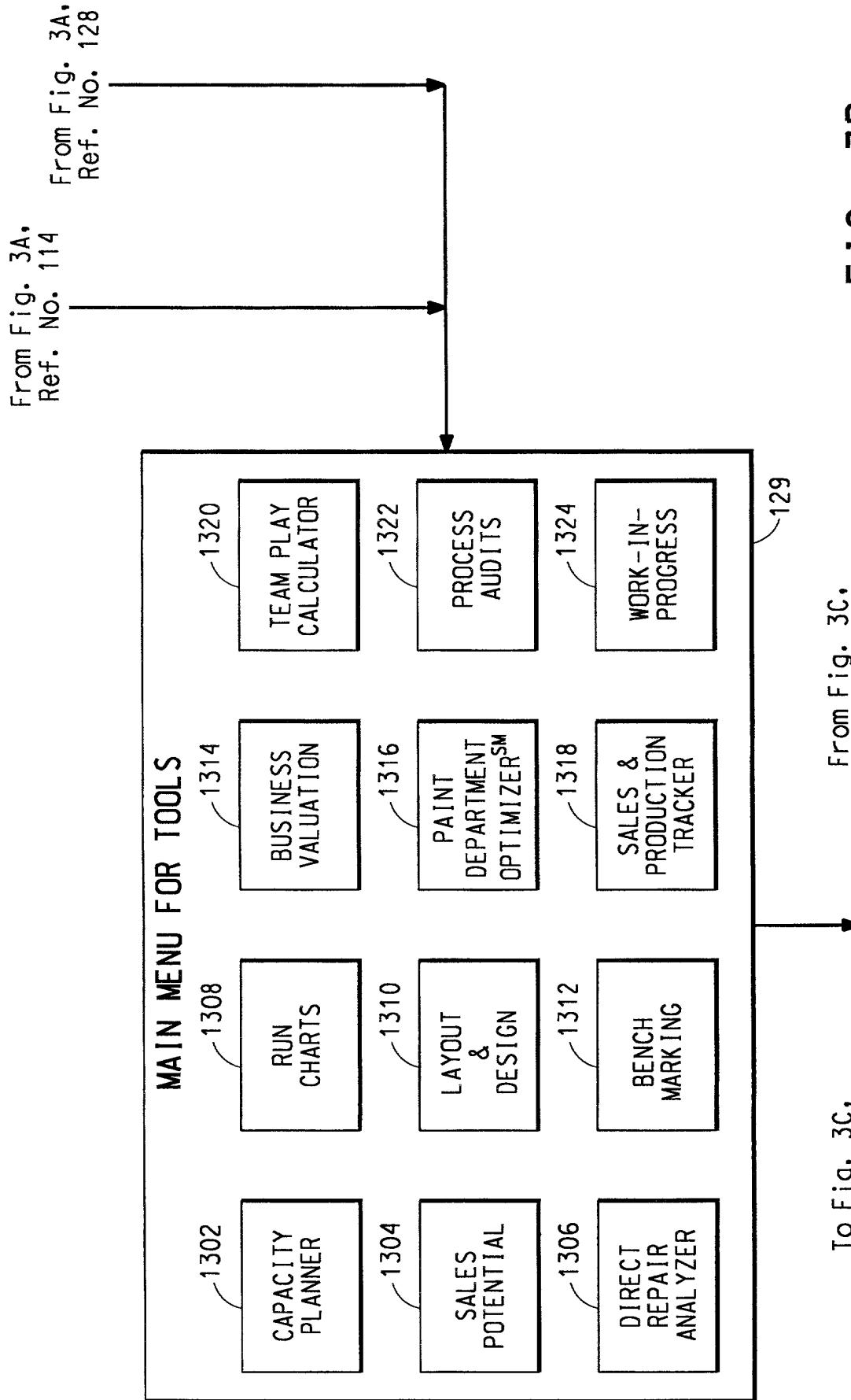


FIG. 2

**FIG. 3A**



To Fig. 3B,  
Ref. No. 129



**FIG. 3B**

From Fig. 3B,  
Ref. No. 129

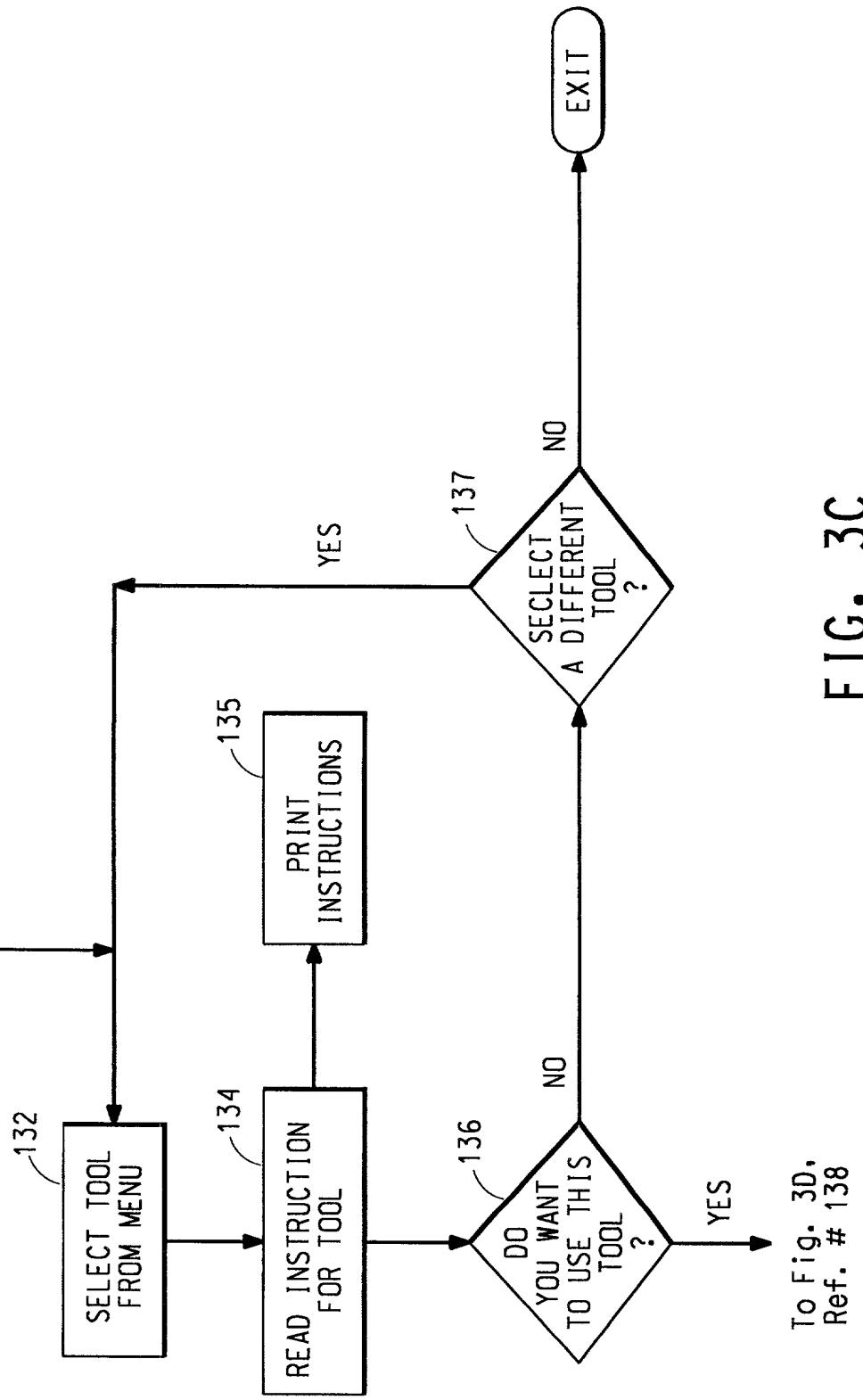
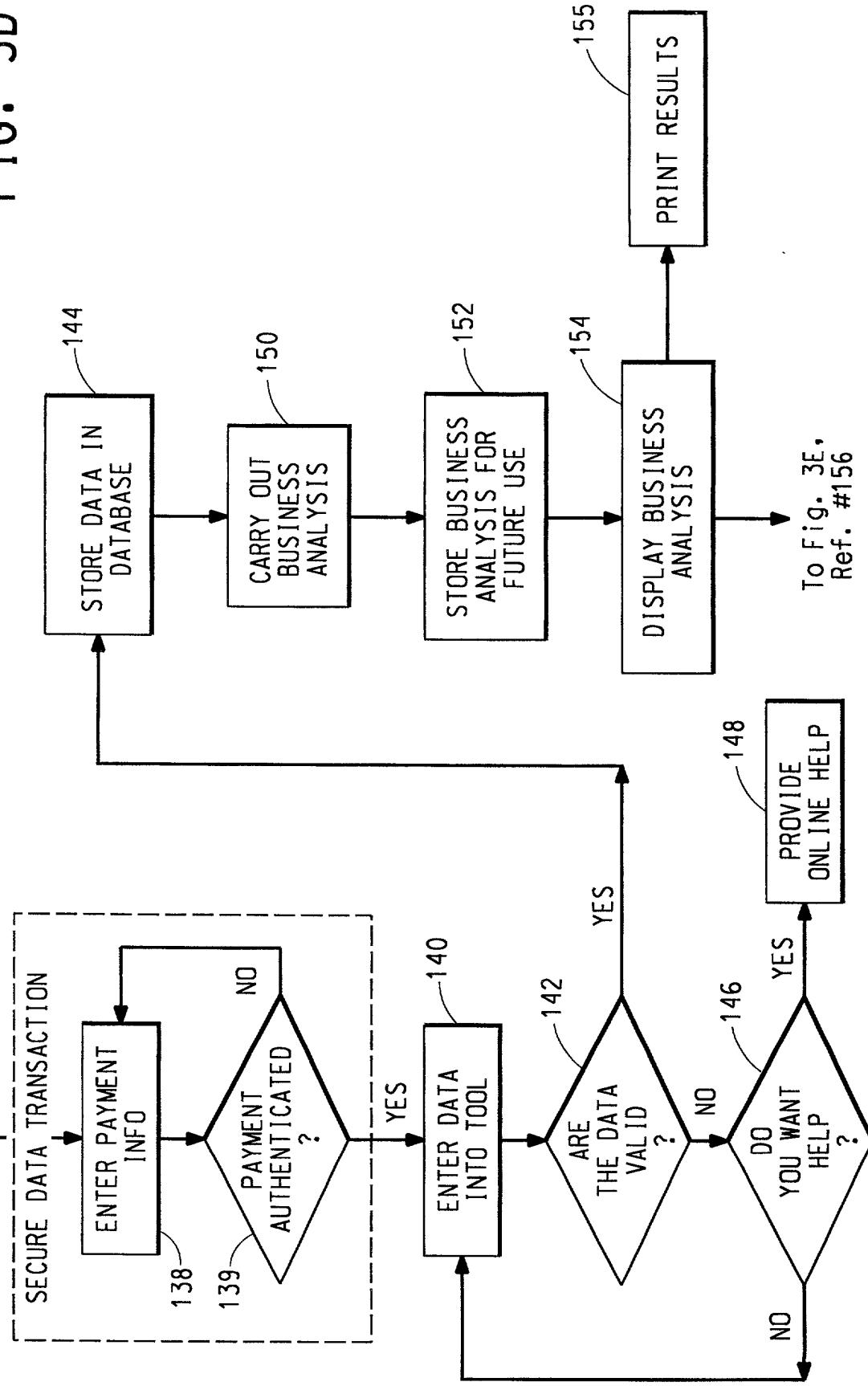


FIG. 3C

To Fig. 3D,  
Ref. # 138

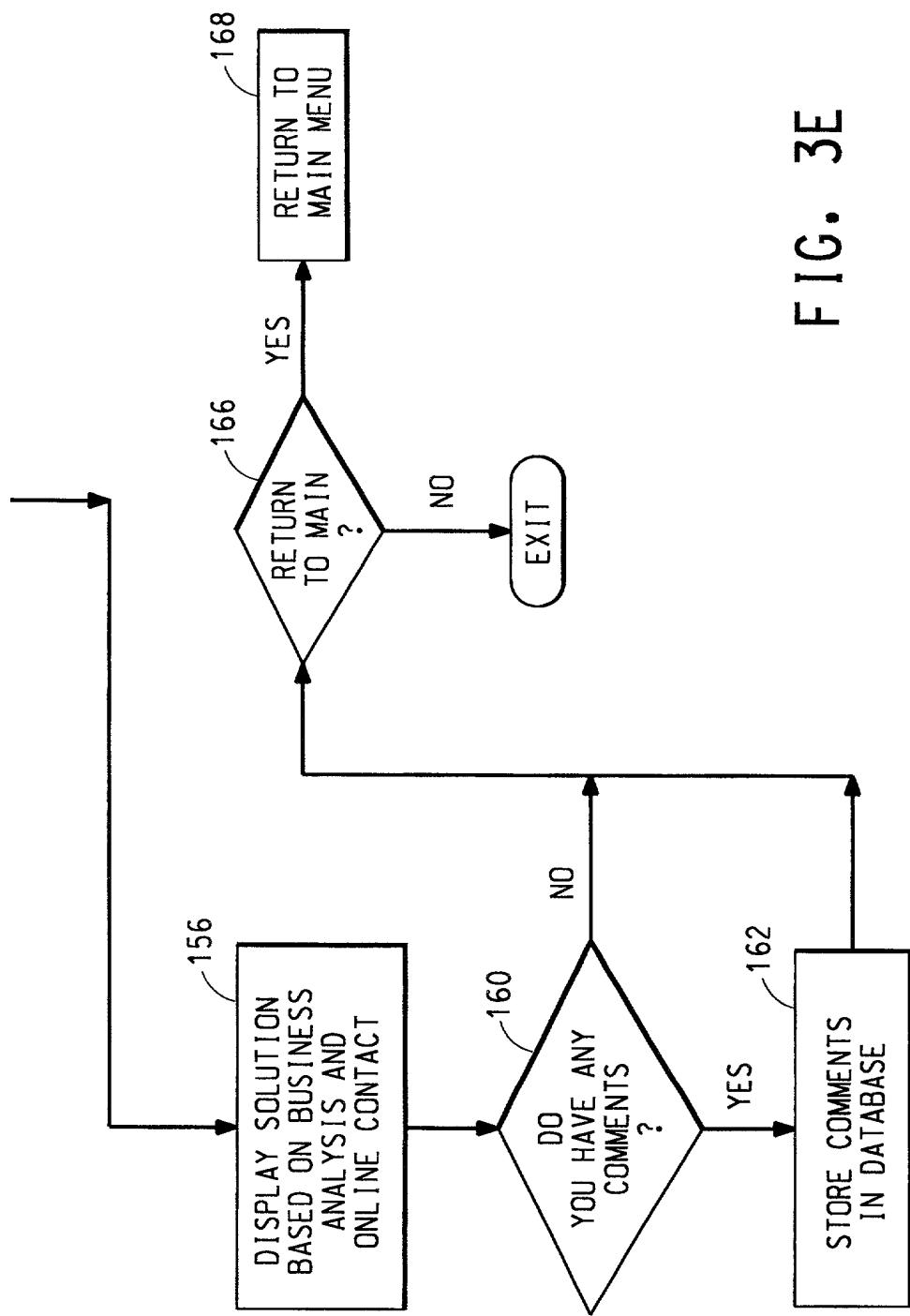
From Fig. 3C,  
Ref. #136

FIG. 3D



**FIG. 3E**

From Fig. 3D,  
Ref. # 154



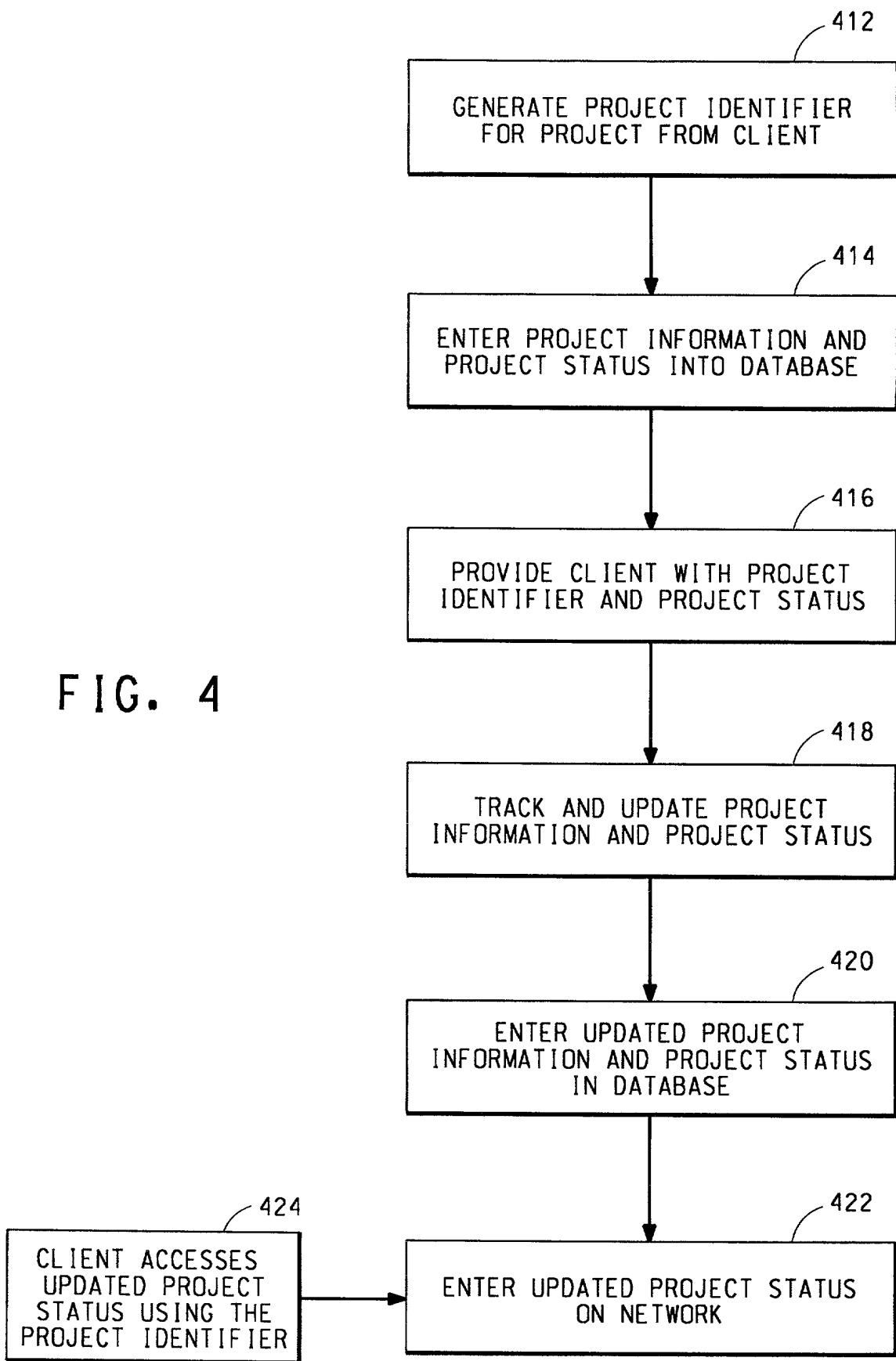


FIG. 4



## DPC Solutions Business Web<sup>SM</sup>



New Customer   Current Customer

Customer Status Check

DPC Solutions Business Web<sup>SM</sup> is pleased to offer you the following 12 tools designed to help you analyze and improve your business:

1. Capacity Planning
2. Sales Potential
3. Direct Repair Program Analyzer (DPM)
4. Run Charts
5. Layout & Design
6. Benchmarking
7. Business Valuation
8. Paint Department Optimizer<sup>SM</sup>
9. Sales & Production Tracker
10. Team Pay Calculator
11. Process Audits
12. Work-in-Process

You can also click on the DuPont Solutions button and contract for services to help you improve your performance.

**FIG. 5A**



## New Customer Information



Account Name:					
Password:					
Password (Re-Enter):					
Group Name:					
Region:					
<b>Submit</b>					

**FIG. 5B**



## New Customer Information



Official Shop Name:

City:

State:

Zip Code:

Shop Contact:

Phone:

FIG. 5C

**FIG. 5D**

The image shows a customer login page. At the top left is the DuPont logo, which consists of the word "DU PONT" in a stylized font inside an oval. To the right of the logo is a watermark-like graphic featuring a cluster of dark spheres and the text "Science and Biology". Below the logo, the page title "Customer Login" is centered. On the left side of the main content area, there is a vertical line. The main content area contains a form with four input fields: "Login:", "Password:", "Group Name:", and "Region:". To the right of these fields is a "Submit" button. The entire form is enclosed in a rectangular border.

Login:	
Password:	
Group Name:	
Region:	

**Submit**



## Information Update



Login:	blake
Visa Card:	123456
Official Shop Name:	Morell's Body and Pai
Street Address:	67 manor ave
City:	oaklyn
State:	nj
Zip Code:	08107
Study Date:	04/30/79
Shop Contact:	bill
Phone:	6241
<input type="button" value="Submit"/>	

**F1G. 5E**

**FIG. 6A**

The screenshot shows a web-based application interface for Dupont. At the top left is the Dupont logo, which includes a stylized blue and green leaf icon and the word "DUPONT". To its right is a vertical sidebar with the title "Customer Menu" and the Dupont corporate slogan "science and technology for life". The main content area has a header bar with several menu items: "Capacity Planner", "Sales Potential", "DRP Analyzer", "Business Valuation", "Process Audit", "Paint Department Optimizer", "Sales and Production Tracker", "Edit Personal Info", "Purpose", "Background", "Data Needed for Input", "How to Use", "Understanding the Output", "Dupont Services", and "GoTo Capacity Planner Application". The "Edit Personal Info" item is currently selected, indicated by a red rectangular highlight.



## Current Capacity Analysis Information



RO Data	
Body Labor Hours per RO	7.9
Percent RO's Body Labor	96.3 %
Structural Labor Hours per RO	3.3
Structural Labor Hours using Floor System per RO	1.0
Percent RO's Structural	10.2 %
Refinish Labor Hours per RO	8.9
Percent RO's Refinish	88.9 %
Mechanical Labor Hours per RO	2.0
Percent RO's Mechanical	19.4 %
Parts Sales \$ per RO	\$600
Percent RO's Parts	64.8 %
Detail Labor Hours per RO	1.0
Percent RO's Detail	50.0 %
Sublet Sales \$ per RO	\$100
Percent RO's Sublet	21.3 %
Labor Rates per Hour	
Body Labor Rate	\$48.00
Structural Labor Rate	\$60.00
Refinish Labor Rate	\$32.00
Mechanical Labor Rate	\$65.00
Paint Materials Rate	\$20.00

**FIG. 6BA**

<b>Detail Labor Rate</b>	<b>\$15.00</b>
Average Repair Order \$ per RO	\$1,246
<b>Manpower Efficiency</b>	
Body Man Labor Efficiency	160.0 %
Painter Labor Efficiency	160.0 %
Mechanical Labor Efficiency	100.0 %
<b>Detailer Labor Efficiency</b>	100.0 %
Estimator Sales per Year	\$3,600,000
Annual Sales per Staff	\$480,000
<b>Scheduled Labor Hours per Year</b>	
Body Men & Helpers Scheduled Labor Hours per Year	2,250
Painters & Helpers Scheduled Labor Hours per Year	2,250
Mechanics Scheduled Labor Hours per Year	2,250
Detailers Scheduled Labor Hours per Year	2,250
<b>Scheduled Operating Hours per Year</b>	
Body Stalls Operating Hours per Year	2,250
Spray Booth Operating Hours per Year	2,250
Mechanical Operating Hours per Year	2,250
Office Operation Hours per Year	2,250
<b>Booth Operations</b>	
Spray Booths Cycle Time Hours	1.5
Spray Booth Redos per Period	0.0
Shop FTR	10,000

**FIG. 6BB**

Description	Current Components
Body Stalls	12
Body Men & Helpers	7
Frame Machines	1
Prep Stalls	5
Spray Booths	2
Cool Down	2
Painter & Helpers	4
Mechanical Stalls	2
Mechanics	1
Detail Stalls	1
Detailers	1
Estimators	3
Staff Including Estimators	5

---

[Modify Current Information](#)

---

[Perform Capacity Analysis](#)

---

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FIG. 6BC

## Capacity Analysis



## Capacity Analysis



Description	Current Components Year	Cars per Year	Sales \$ per Year	Add or Subtract Components Year	Future Components Year	Cars per Year	Sales \$ per Year
Body Stalls	12	5,603	\$6,980,264	<u>0</u>	12	5,603	\$6,980,264
Body Men & Helpers	7	3,132	\$3,901,485	<u>0</u>	7	3,132	\$3,901,485
Frame Machines	1	10,695	\$13,323,367	<u>0</u>	1	10,695	\$13,323,367
Prep Stalls	5	2,807	\$3,497,018	<u>0</u>	5	2,807	\$3,497,018
Spray Booths	2	3,000	\$3,737,204	<u>0</u>	2	3,000	\$3,737,204
Cool Down	2	3,000	\$3,737,204	<u>0</u>	2	3,000	\$3,737,204
Painter & Helper	4	1,820	\$2,267,234	<u>0</u>	4	1,820	\$2,267,234
Mechanical Stalls	2	11,598	\$14,447,955	<u>0</u>	2	11,598	\$14,447,955
Mechanical	1	5,799	\$7,223,978	<u>0</u>	1	5,799	\$7,223,978

FIG. 6CA

<b>Detail Stalls</b>	1	4,500	\$5,605,807	<input type="button" value="0"/>	1	4,500	\$5,605,807
<b>Detailers</b>	1	4,500	\$5,605,807	<input type="button" value="0"/>	1	4,500	\$5,605,807
<b>Estimators</b>	3	2,890	\$3,600,000	<input type="button" value="0"/>	3	1,927	\$2,400,000
<b>Staff Including Estimators</b>	5	1,927	\$2,400,000	<input type="button" value="0"/>	5	1,927	\$2,400,000

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**FIG. 6CB**



## Shop Data



	Value	Min	Max
RO Data			
Body Labor Hours per RO		0.0	50.0
Percent RO's Body Labor		0.0%	100.0%
Structural Labor Hours per RO		0.0	50.0
Structural Labor Hours using Floor System per RO		0.0	50.0
Percent RO's Structural		0.0%	100.0%
Refinish Labor Hours per RO		0.0	50.0
Percent RO's Refinish		0.0%	100.0%
Mechanical Labor Hours per RO		0.0	50.0
Percent RO's Mechanical		0.0%	100.0%
Parts Sales per RO		\$0	\$10,000
Percent RO's Parts		0.0%	100.0%

FIG. 6DA

<b>Detail Labor Hours per RO</b>	<input type="text"/>	0.0	5.0
<b>Percent RO's Detail</b>	<input type="text"/>	0.0%	100.0%
<b>Sublet Sales per RO</b>	<input type="text"/>	\$0	\$1,000
<b>Percent RO's Sublet</b>	<input type="text"/>	0.0%	100.0%
<b>Labor \$ Rates per Hour</b>		Value	Min Max
Body Labor Rate	<input type="text"/>	\$20.00	\$50.00
Structural Labor Rate	<input type="text"/>	\$20.00	\$100.00
Refinish Labor Rate	<input type="text"/>	\$20.00	\$50.00
Mechanical Labor Rate	<input type="text"/>	\$20.00	\$100.00
Paint Materials Rate	<input type="text"/>	\$10.00	\$50.00
Detail Labor Rate	<input type="text"/>	\$0.00	\$25.00
<b>Average Repair Order \$ per RO</b>			<b>Calculate Average Repair Order \$ per RO</b>

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**F1G. 6DB**



## Shop Layout



	Value	Min	Max
Manpower Efficiency			
Body Man Labor Efficiency	50	100%	300%
Painter Labor Efficiency	150	100%	300%
Mechanical Labor Efficiency	150	50%	300%
Detailer Labor Efficiency	200	50%	300%
Estimator Sales Dollars per Year	\$750000	\$400,000	\$1,500,000
Annual Sales Dollars per Staff	\$350000	\$200,000	\$1,000,000
Scheduled Labor Hours			
Body Men & Helpers Scheduled Labor Hours per Year	2000	1,500	2,500
Painters & Helpers Scheduled Labor Hours per Year	1800	1,500	2,500
Mechanics Scheduled Labor Hours per Year	1800	1,500	2,500
Detailers Scheduled Labor Hours per Year	1800	1,500	2,500
Scheduled Operating Hours			
Body Stalls Operating Hours per Year	1850	1,500	2,500

FIG. 6EA

Spray Booth Operating Hours per Year	<u>1850</u>	1,500	2,500
Mechanical Operating Hours per Year	<u>2000</u>	1,500	2,500
Office Operation Hours per Year	<u>2500</u>	1,500	2,500
Booth Operations	<u>4</u>	0.25	5
Spray Booths Cycle Time Hours	<u>5000</u>	0	10,000
Spray Booth Redos per Period	<u>50000</u>	0	100,000
Shop FT2			

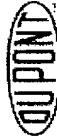
[Next >](#)

---

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---

**FIG. 6EB**



## Shop Layout

science and  
technology

Components	[ ] 0
Body Stalls	[ ] 0
Body Men & Helpers	[ ] 0
Frame Machines	[ ] 0
Prep Stalls	[ ] 0
Spray Booths	[ ] 0
Cool Down	[ ] 0
Painter & Helpers	[ ] 0
Mechanical Stalls	[ ] 0
Mechanics	[ ] 0
Detail Stalls	[ ] 0
Detailers	[ ] 0
Estimators	[ ] 0
Staff Including Estimators	[ ] 0

FIG. 6EC

Next >  
[ ]



## Customer Menu



---

DUPONT

Customer Menu

science & technology

---

[Capacity Planner](#)   [Sales Potential](#)   [DRP Analyzer](#)   [Run Charts](#)   [Layout Design and Planner](#)   [Benchmarking](#)

[Business Valuation](#)   [Process Audit](#)   [Paint Department Optimizer](#)   [Sales and Production Tracker](#)   [Team Pay Calculator](#)   [Work In Process](#)

[Edit Personal Info](#)

---

[Purpose](#) | [Background](#) | [Data Needed for Input](#) | [How to Use](#) | [Understanding the Output](#) | [Dupont Services](#)

---

[Go To Sales Potential Application](#)

FIG. 7A



## Sales Potential

science  
and  
technology

### Sales Potential based on Labor Utilization

Description	Current	Target
Bodymen & Helpers	5	5
Painters & Helpers	3	3
Number of Technicians, Body & Paint	8	8
Clock Hr per week per tech	40	40
Work weeks per Year	50	50
Average Technician Proficiency body & paint	150	165
Total Flag Hours Produced	24,000	26,400
Discounted Insurance Labor Rate	\$4.17 /hr	\$4.17 /hr

FIG. 7BA

**Annual Labor Sales \$ body & paint**

**Potential for Increased Labor Sales**

**Current Facilities Labor Utilization %**

**Labor as % of Total Sales**

**Potential Increase in Total Sales \$**

---

\$110,000

\$10,000

100 %

55.0 %

\$18,182

The DuPont Solution

Calculate

---

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**FIG. 7BB**



## Customer Menu



---

DUPONT

---

**Customer Menu**

---

**Business Valuation**

Capacity Planner	Sales Potential	DRP Analyzer	Run Charts	Layout Design and Planner	Benchmarking
Process Audit	Paint Department Optimizer	Sales and Production Tracker	Team Pay Calculator	Work In Process	

[Edit Personal Info](#)

---

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---

[Go To DRP Analyzer Application](#)

FIG. 8A



## Insurance Company Rating System

science and  
technology

	Company Name					
	USAA	Met. Group	Prudential	Hartford	CA State AA	Liberty Mut.
Volume Of Business	10	20	30	30	30	50
Profitability by RO	100	25	25	25	25	75
Discounting Required	80	20	60	60	60	60
Adjuster Fairness	100	75	25	25	75	125
Ease of Proc./Reporting	100	100	75	75	25	25
Ease/Timeliness of Payment	60	60	15	45	15	15
Ease of getting supplements	100	75	75	25	75	125
Parts Policies	100	75	75	25	25	50
Paint Cap Restrictions	40	20	10	30	10	50
Ethical Practices	100	50	25	25	75	25
Total	790	520	415	365	415	600

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**FIG. 8BA**



## Insurance Company Rating System

science  
and  
technology

### Company Name

Factor	Company Name
Volume of Business	
Profitability by RO	
Discounting Required	
Adjuster Fairness	
Ease of Proc./Reporting	
Ease/Timeliness of Payment	
Ease of getting supplements	
Parts Policies	
Paint Cap Restrictions	
Ethical Practices	

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**FIG. 8BB**



## Insurance Company Rating System

science  
and  
technology

### Company Name

Factor	Company Name
Volume of Business	
Profitability by RO	
Discounting Required	
Adjuster Fairness	
Ease of Proc./Reporting	
Ease/Timeliness of Payment	
Ease of getting supplements	
Parts Policies	
Paint Cap Restrictions	
Ethical Practices	

**Submit Data**

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**FIG. 8BC**



## Customer Menu

science and  
technology

<a href="#">Capacity Planner</a>	<a href="#">Sales Potential</a>	<a href="#">DRP Analyzer</a>	<a href="#">Run Charts</a>	<a href="#">Layout Design and Planner</a>	<a href="#">Benchmarking</a>
<a href="#">Business Valuation</a>	<a href="#">Process Audit</a>	<a href="#">Paint Department Optimizer</a>	<a href="#">Sales and Production Tracker</a>	<a href="#">Team Pay Calculator</a>	<a href="#">Work In Process</a>
<hr/>					
<a href="#">Edit Personal Info</a>					
<hr/>					
<a href="#">Purpose</a>   <a href="#">Background</a>   <a href="#">Data Needed for Input</a>   <a href="#">How to Use</a>   <a href="#">Understanding the Output</a>   <a href="#">Dupont Services</a>					
<hr/>					
<a href="#">Go To Run Charts Application</a>					

FIG. 9A



## Run Charts

- Closing Ratio Each Week
- Redos Each Week
- Painter Proficiency Each Week
- % On Time Delivery Each Week
- Gross Profit \$ per Clock Hours Per Month
- Customer Service Index Per Month
- Comebacks Each Week
- Bodyman Proficiency Each Week
- Booth Cycle Time Each Week
- \$ per Day to Deliver Each Week
- Avg # of P-Page items per estimate Each Week
- Parts Sales \$ to Labor Sales \$ Per Month

[View Charts](#)

[Customize Charts](#)

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[Update Existing Data](#)

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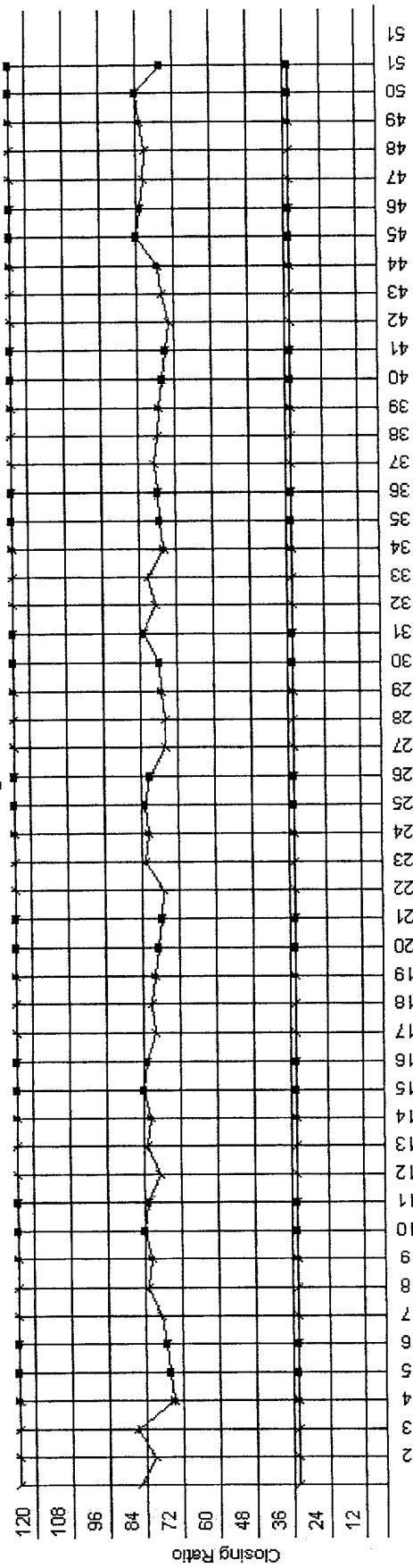
**FIG. 9BA**



## Run Charts

science and  
technology

Closing Ratio



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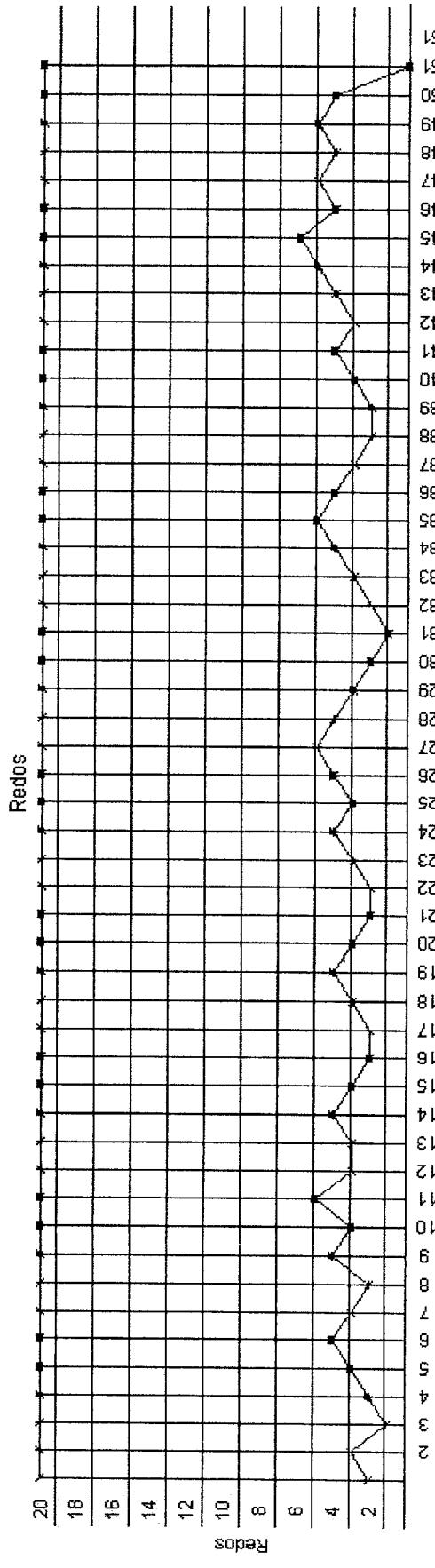
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**FIG. 9BB**



## Run Charts

science and  
technology



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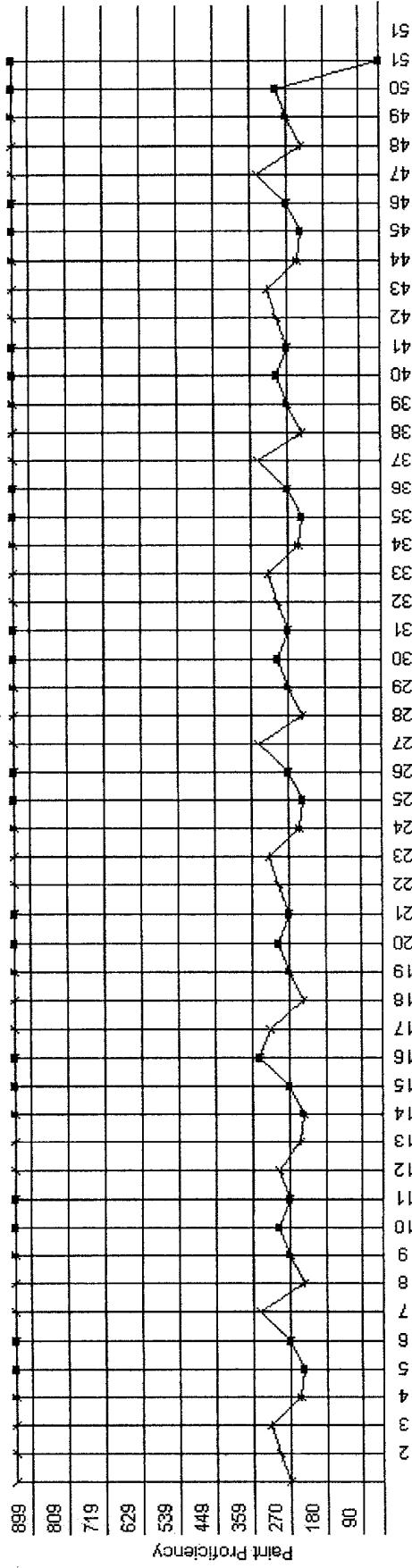
**FIG. 9BC**



## Run Charts

science and  
technology

Paint Proficiency



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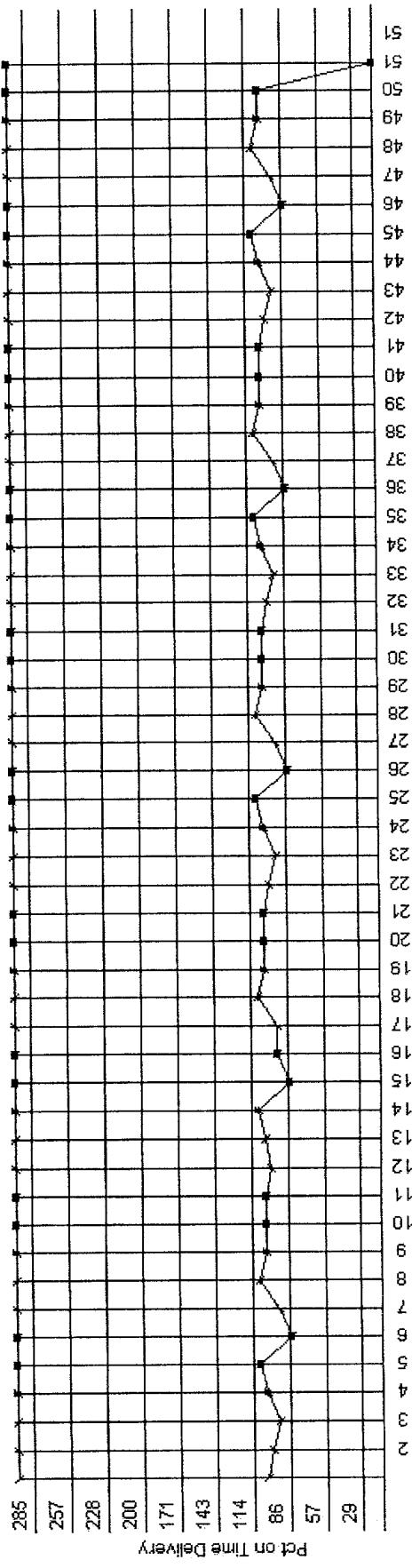
**FIG. 9BD**



## Run Charts

science and  
biology

Pct on Time Delivery



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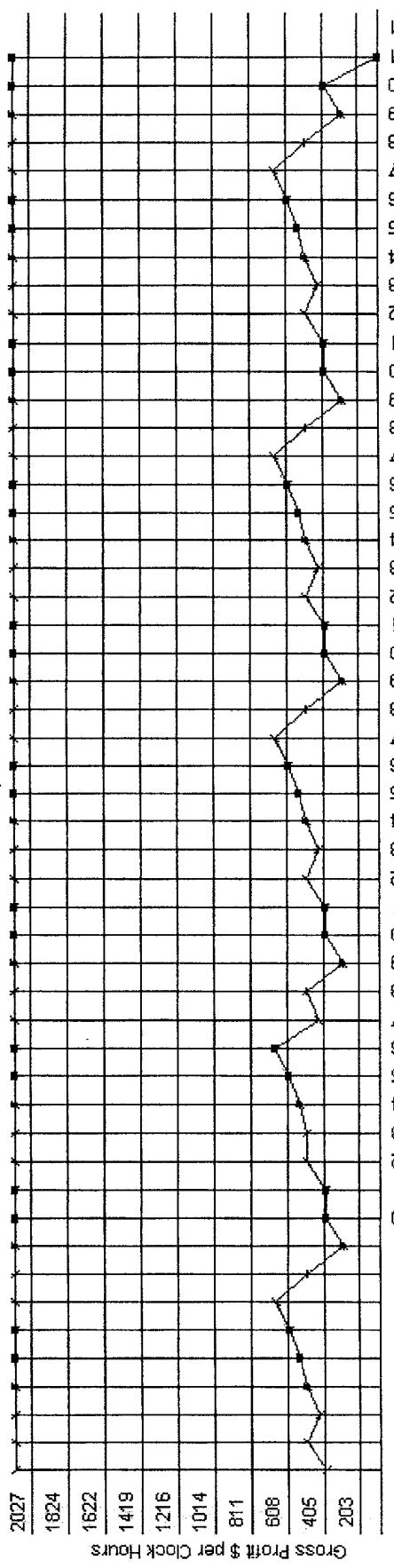
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**FIG. 9BE**

## Run Charts

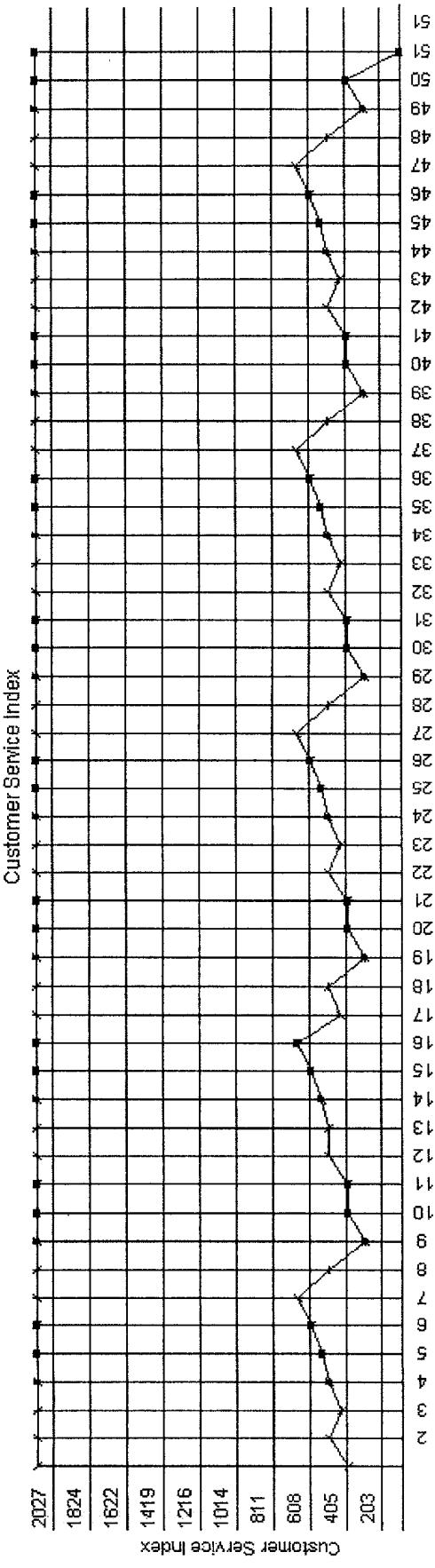
Gross Profit \$ per Clock Hours

[Back to Choices](#)[The DuPont Solution](#)[Main Menu](#) | [Online Help](#)**FIG. 9BF**

DUPONT

## Run Charts

science and  
technology



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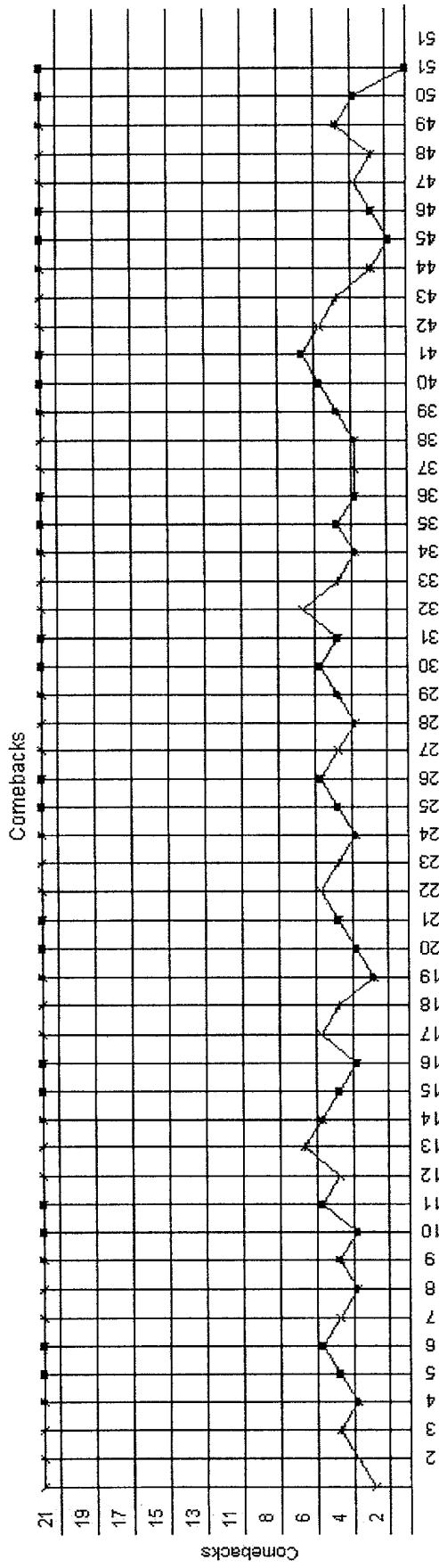
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**FIG. 9BG**



## Run Charts

science and  
biology



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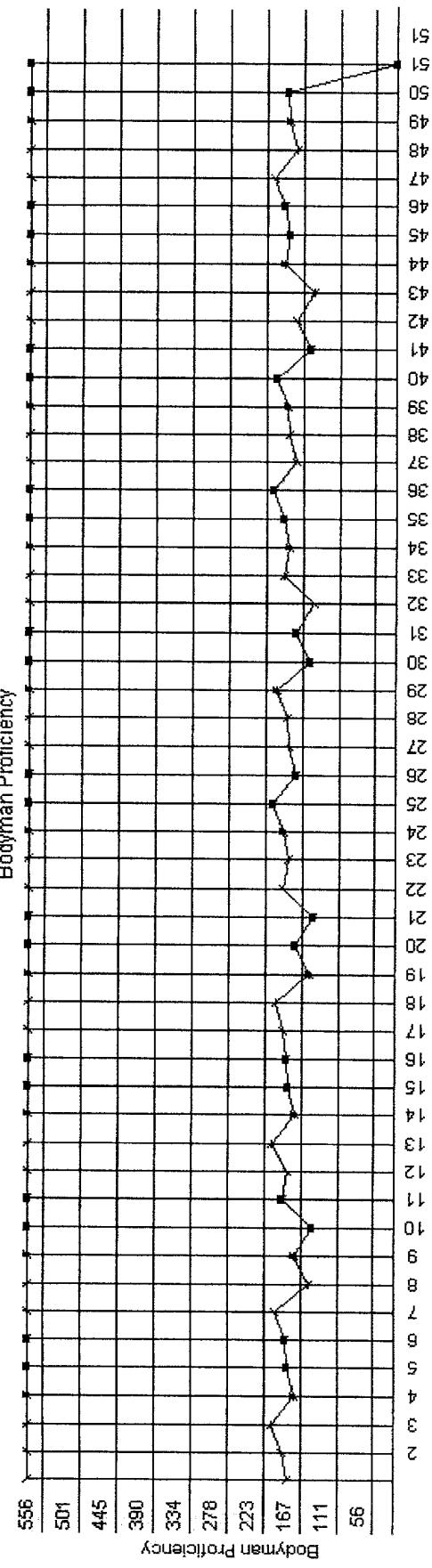
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**FIG. 9BH**



## Run Charts



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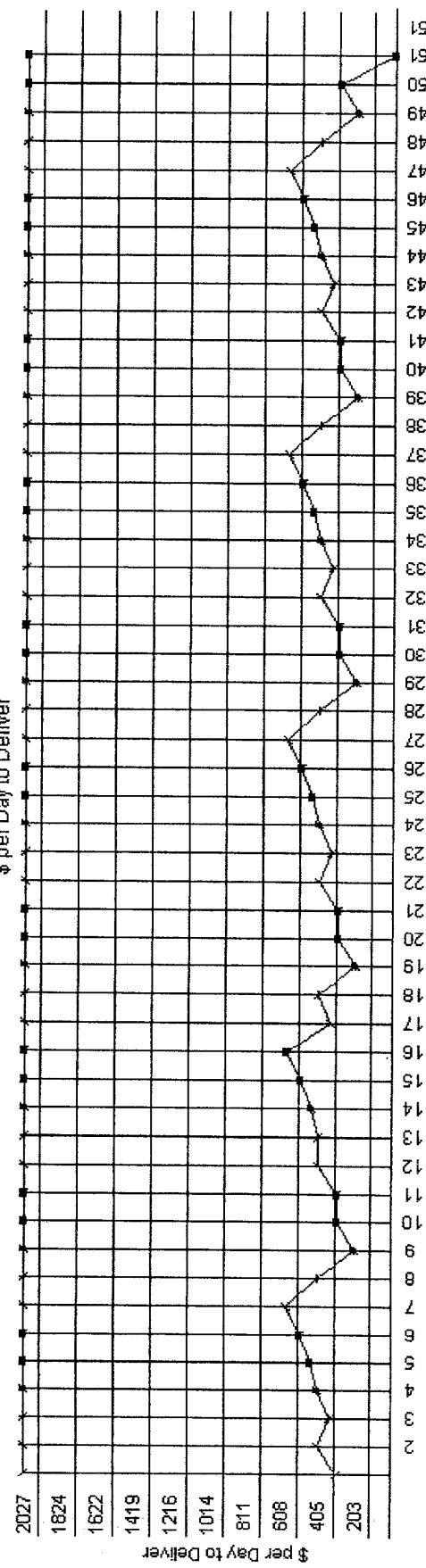
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FIG. 9B1



## Run Charts

science  
and  
biology



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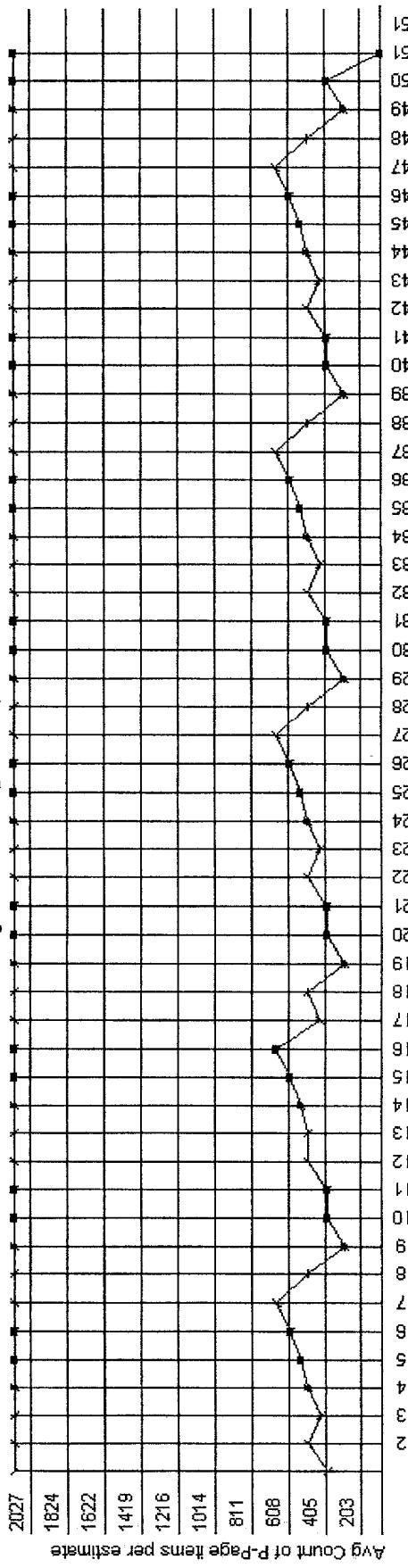
**FIG. 9BJ**



## Run Charts

science  
and  
biology

Avg Count of P-Page items per estimate



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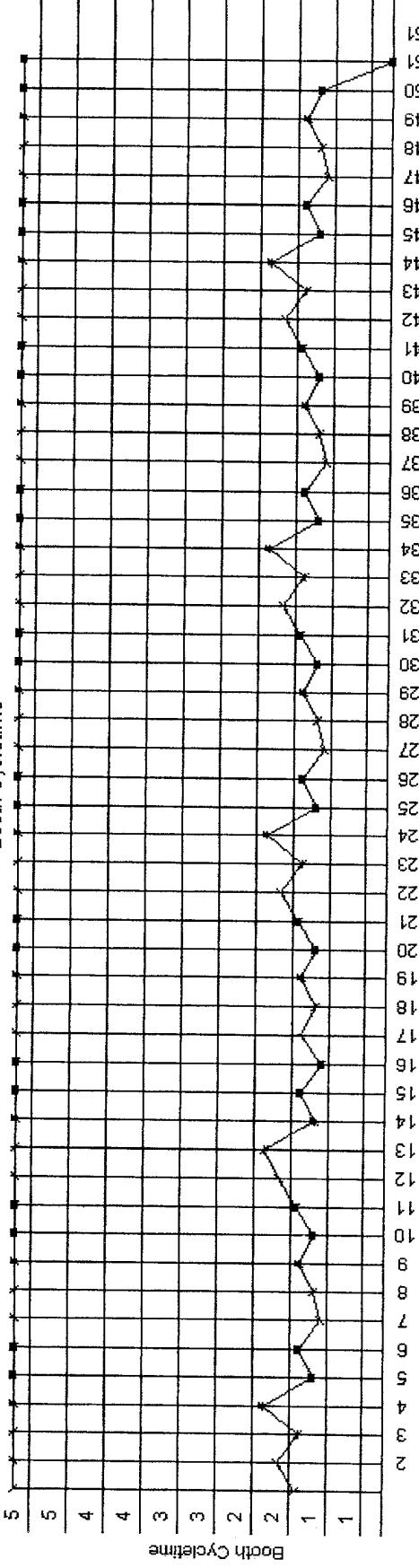
**FIG. 9BK**



## Run Charts

science  
and  
biology

Booth Cycletime



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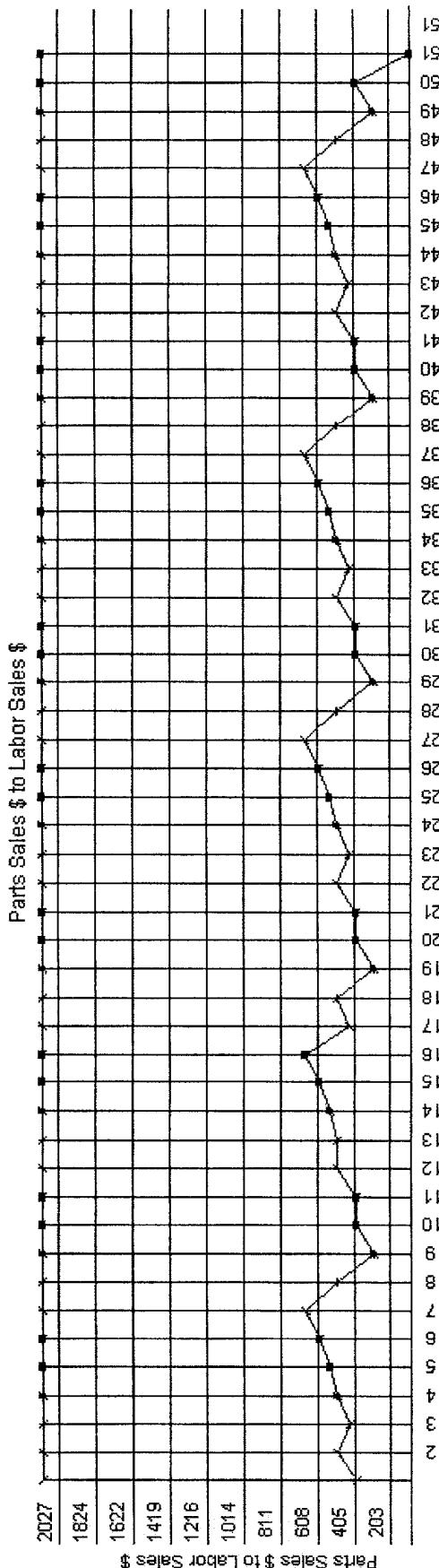
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**FIG. 9BL**



## Run Charts

science and  
biology



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**FIG. 9BM**



## Customize Charts

science  
and  
technology

Width	<input type="text" value="950"/>
Height	<input type="text" value="300"/>
Background Color	<input type="color" value="White"/>
Field Color	<input type="color" value="White"/>
Grid Color	<input type="color" value="Black"/>
Line Color	<input type="color" value="Red"/>
Line Thickness	<input type="text" value="2"/>
Font Color	<input type="color" value="Blue"/>
Font Type	<input type="text" value="Arial"/>
Font Height	<input type="text" value="10"/>
Quality	<input type="text" value="100"/>
Show Legend?	<input type="checkbox"/>
Show Points?	<input checked="" type="checkbox"/>
Show X Grid?	<input checked="" type="checkbox"/>
Show Y Grid?	<input checked="" type="checkbox"/>
Show Zero?	<input type="checkbox"/>

[Save Changes](#)

[Reset Default Values](#)

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FIG. 9BN



## Add Run Chart Data

science and  
technology

Point	Cleaning Ratio	Complaints	Redos	Bodymen Proficiency	Painter Proficiency	Booth Cycle Time	% on Time Delivery	\$ per Day to Deliver
1	52							
2	53							
3	54							
4	55							
5	56							
6	57							
7	58							
8	59							
9	60							
10	61							
11	62							
12	63							
13	64							
14	65							
15	66							
16	67							
17	68							
18	69							
19	70							
20	71							
21	72							
22	73							
23	74							
24	75							
25								

Submit Changes

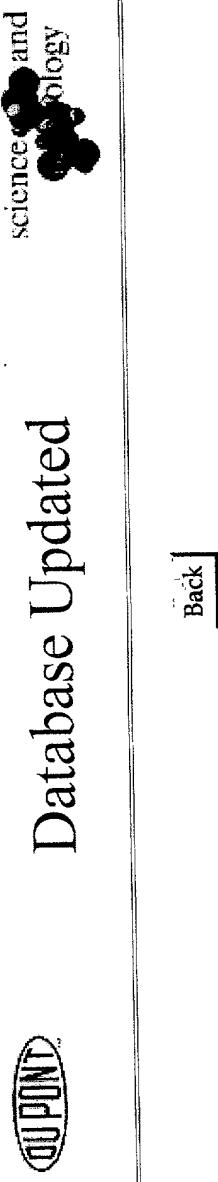
Update Existing Data

Choose Charts for Viewing

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**FIG. 9BO**

## FIG. 9BP





## Update Run Chart Data

science and  
technology

Part	Overshoot Ratio	Comebacks	Redos	Buddymen Proficiency	Painter Proficiency	Batch Cycle Time	Lead Time Defect	\$ per Day to Deliver
1	1	80.0	2.0	160.0	225.0	1.25	90.0	300.0
2	2	75.0	3.0	170.0	250.0	1.5	95.0	400.0
3	3	81.0	4.0	170.0	215.0	1.2	80.0	350.0
4	4	69.0	3.0	200.0	150.0	1.7	90.0	400.0
5	5	70.0	4.0	160.0	190.0	1.0	95.0	445.0
6	6	71.0	5.0	165.0	225.0	1.2	70.0	500.0
7	7	73.0	4.0	180.0	300.0	0.9	80.0	580.0
8	8	77.0	3.0	130.0	190.0	1.0	95.0	400.0
9	9	76.0	4.0	150.0	225.0	1.2	90.0	200.0
10	10	78.0	3.0	125.0	250.0	1.0	89.0	300.0
11	11	77.0	5.0	170.0	225.0	1.25	90.0	300.0
12	12	73.0	4.0	160.0	250.0	1.5	85.0	400.0
13	13	74.0	5.0	170.0	275.0	1.2	80.0	335.0
14	14	77.0	6.0	185.0	200.0	1.7	90.0	400.0
15	15	76.0	5.0	150.0	190.0	1.0	95.0	445.0
16	16	78.0	4.0	160.0	225.0	1.2	70.0	510.0
17	17	77.0	3.0	165.0	300.0	0.9	80.0	580.0
18	18	75.0	4.0	180.0	190.0	1.0	95.0	400.0
19	19	74.0	2.0	130.0	225.0	1.2	90.0	200.0
20	20	73.0	3.0	150.0	250.0	1.0	89.0	300.0
21	21	72.0	4.0	125.0	225.0	1.25	90.0	300.0
22	22	71.0	5.0	170.0	250.0	1.5	85.0	400.0
23	23	77.0	4.0	160.0	275.0	1.2	80.0	335.0
24	24	76.0	3.0	170.0	200.0	1.7	90.0	400.0

Delete Current Row

Submit Changes

Add New Data

Choose Charts for Viewing

Main Menu | Online Help

FIG. 9B0

**FIG. 10A**

DUPONT

Customer Menu

science and  
technology

---

Capacity Planner      Sales Potential      DRP Analyzer      Run Charts      Layout Design and Planner      Benchmarking

Business Valuation      Process Audit      Paint Department Optimizer      Sales and Production Tracker      Team Pay Calculator      Work In Process

---

Edit Personal Info

---

Purpose | Background | Data Needed for Input | How to Use | Understanding the Output | Dupont Services

---

Go To Layout Design and Planner Application



## Layout Design and Planning



science  
and  
technology

[View Ranges](#)

Stall	Sqft/stall	Count	Total Ft2	% of Total
Body	300	12	3600	27.4 %
Frame	420	1	420	3.2 %
Prep	250	5	1250	9.5 %
Spray Booths	650	2	1300	9.9 %
Cool Down	200	2	400	3.0 %
Mechanical	250	2	500	3.8 %
Detail	200	1	200	1.5 %
Paint Mixing	200		200	1.5 %
Office Ft2			1,313	10.0 %
Storage Ft2			1575	12.0 %
Aisle Space			2,368	18.0 %
Total Ft2			13125	100.0 %
Body to Paint Ratio				57.4 %

FIG. 10BA

Parking Ft2 with Aisle Space  $\boxed{300}$   
 Days to Deliver  $\boxed{\frac{300}{6}}$  39 11,648

Annual Sales \$	\$2,267,234
Annual Sales \$ per Ft2	\$172.74
Annual Cars Produced	1,820
Days	281

Worker	Count	Clock Hours	Efficiency	Flag Hours	Staffing Density
Body	7	15,750	160	25,200	1.86
Painter	4	9,000	160	14,400	2.25
Mechanics	1	2,250	100	2,250	2.00
Detailer	1	2,250	100	2,250	1.00
Estimators	3				
Office plus Estimators	5				
Total	18	29,250	151 %	44,100	1.92

Calculate 

The DuPont Solution 

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FIG. 1 OBB

Min. Avg. Max.

Body	200	250	300
Frame	350	420	450
Prep	500	650	750
Cool Down	150	200	250
Mechanical	200	300	400
Detail	150	200	250
Paint Mixing	100	200	300
Body to Paint Ratio	40	50	60
Overall Staffing Density	1.5	2	3

Sq. Ft. Area      Width-Ft.      Length-Ft.

150	7.5	20.0
180	9.0	20.0
200	10.0	20.0
250	10.0	25.0
300	12.0	25.0
350	14.0	25.0
425	17.0	25.0
450	18.0	25.0
500	20.0	25.0
600	20.0	30.0
750	23.0	32.5

FIG.10BC

**FIG. 11A**

The screenshot shows a web-based application interface for DuPont. At the top left is the DuPont logo, which consists of a stylized orange and blue 'D' inside an oval. To its right is the text "Science and Technology". The main title "Customer Menu" is centered at the top. Below the title is a horizontal navigation bar with several links: "Capacity Planner", "Sales Potential", "DRP Analyzer", "Run Charts", "Layout Design and Planner", and "Benchmarking". Under the "Business Valuation" section, there are links for "Process Audit", "Paint Department Optimizer", "Sales and Production Tracker", "Team Pay Calculator", and "Work In Process". A prominent link "Edit Personal Info" is highlighted with a red rectangular box. At the bottom of the page, there is a footer with links: "Purpose", "Background", "Data Needed for Input", "How to Use", "Understanding the Output", and "Dupont Services". Another red box highlights the link "Go To Benchmarking Application".

DUPONT

Science and Technology

## Customer Menu

---

Capacity Planner   Sales Potential   DRP Analyzer   Run Charts   Layout Design and Planner   Benchmarking

Business Valuation   Process Audit   Paint Department Optimizer   Sales and Production Tracker   Team Pay Calculator   Work In Process

Edit Personal Info

---

Purpose | Background | Data Needed for Input | How to Use | Understanding the Output | Dupont Services

---

Go To Benchmarking Application

**FIG. 11B**

General Account Information

science and  
technology

---

Annual Sales \$ [ ]

Next >

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# Level 1 Report

science and  
technology

<b>Sales</b>	<b>Average Sales \$</b>	<b>Average Sales %</b>
<b>Metal Labor Sales</b>	<b>\$12,731</b>	<b>28.29 %</b>
<b>Paint Labor Sales</b>	<b>\$8,558</b>	<b>19.02 %</b>
<b>Detail Labor Sales</b>	<b>\$64</b>	<b>0.14 %</b>
<b>Mechanical Labor Sales</b>	<b>\$77</b>	<b>0.17 %</b>
<b>Other Labor Sales</b>	<b>\$1,994</b>	<b>4.43 %</b>
<b>Total Labor Sales</b>	<b>\$23,423</b>	<b>52.05 %</b>
<b>Parts Sales</b>	<b>\$14,924</b>	<b>33.16 %</b>
<b>Material Sales</b>	<b>\$4,383</b>	<b>9.74 %</b>
<b>Sublet Sales</b>	<b>\$697</b>	<b>1.55 %</b>
<b>Sales Allowances</b>	<b>- \$8</b>	<b>-0.02 %</b>
<b>Miscellaneous Sales</b>	<b>\$1,580</b>	<b>3.51 %</b>
<b>Total</b>	<b>\$45,000</b>	<b>100.00 %</b>
<b>Costs</b>	<b>Average Cost \$</b>	<b>Average Cost %</b>
<b>Metal Labor Costs</b>	<b>\$5,253</b>	<b>11.67 %</b>
<b>Paint Labor Costs</b>	<b>\$3,681</b>	<b>8.18 %</b>
<b>Detail Labor Costs</b>	<b>\$110</b>	<b>0.24 %</b>
<b>Mechanical Labor Costs</b>	<b>\$31</b>	<b>0.07 %</b>
<b>Other Labor Costs</b>	<b>\$2,127</b>	<b>4.73 %</b>
<b>Total Labor Costs</b>	<b>\$11,203</b>	<b>24.90 %</b>
<b>Parts Costs</b>	<b>\$11,331</b>	<b>25.18 %</b>
<b>Material Costs</b>	<b>\$3,526</b>	<b>7.84 %</b>
<b>Sublet Costs</b>	<b>\$586</b>	<b>1.30 %</b>
<b>Miscellaneous Costs</b>	<b>\$1,410</b>	<b>3.13 %</b>
<b>Total</b>	<b>\$28,056</b>	<b>62.35 %</b>
<b>Gross Profit</b>	<b>\$16,944</b>	<b>37.65 %</b>
<b>Overhead Expenses</b>	<b>Average Overhead \$</b>	<b>Average Overhead %</b>
<b>Management Wages</b>	<b>\$2,933</b>	<b>6.52 %</b>
<b>Sales Wages</b>	<b>\$206</b>	<b>0.46 %</b>
<b>Office Wages</b>	<b>\$1,609</b>	<b>3.57 %</b>
<b>Product Support Wages</b>	<b>\$1,035</b>	<b>2.30 %</b>
<b>Total Staff Wages</b>	<b>\$5,782</b>	<b>12.85 %</b>
<b>Accounting Fees</b>	<b>\$161</b>	<b>0.36 %</b>
<b>Advertising/Promotion</b>	<b>\$621</b>	<b>1.38 %</b>
<b>Amortizations</b>	<b>\$87</b>	<b>0.19 %</b>
<b>Bad Debts</b>	<b>\$20</b>	<b>0.05 %</b>

FIG.11CA

<b>Bank Charges</b>	\$44	0.10 %
<b>Computer Expenses</b>	\$61	0.14 %
<b>Depreciation</b>	\$1,011	2.25 %
<b>Donations/Charity</b>	\$39	0.09 %
<b>Dues/Subscriptions</b>	\$193	0.43 %
<b>Employee Education</b>	\$103	0.23 %
<b>Entertainment</b>	\$69	0.15 %
<b>Insurance</b>	\$692	1.54 %
<b>Interest</b>	\$477	1.06 %
<b>Miscellaneous Taxes</b>	\$418	0.93 %
<b>Office Supplies/Postage</b>	\$407	0.90 %
<b>Laundry/Uniforms</b>	\$90	0.20 %
<b>Leases &amp; Rentals</b>	\$319	0.71 %
<b>Licenses &amp; Permits</b>	\$57	0.13 %
<b>Professional Fees</b>	\$162	0.36 %
<b>Rent on Building</b>	\$1,677	3.73 %
<b>Repairs &amp; Maintenance</b>	\$403	0.90 %
<b>Small Tool Replacement</b>	\$137	0.30 %
<b>Telephone</b>	\$243	0.54 %
<b>Travel</b>	\$98	0.22 %
<b>Utilities</b>	\$788	1.75 %
<b>Miscellaneous Overhead</b>	\$618	1.37 %
<b>Total Miscellaneous Expenses</b>	\$9,363	20.81 %
<b>Miscellaneous Income (negative)</b>	- \$80	-0.18 %
<b>Total Overhead</b>	\$15,065	33.48 %
 <b>Net Profit</b>	 \$1,879	 4.18 %

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FIG. 11CB



## Revenue & Direct Cost Information



science and  
technology

	Number of People	Actual Clock Hours
Business Days	0	0
Number of RO's	0	0
Estimates Written	0	0
Square Foot Facility	0	0
Office	0	0
Body	0	0
Paint	0	0
Mechanical	0	0
Non-Production	0	0
Shop Rate	Hours Flagged	
Body	0	0
Paint	0	0
Mechanical	0	0

FIG. 11 DA

	Sales	Costs
Metal Labor	0	0
Paint Labor	0	0
Detail Labor	0	0
Mechanical Labor	0	0
Other Labor	0	0
Parts	0	0
Material	0	0
Sublet	0	0
Sales Allowances	0	0
All Other	0	0

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FIG. 11DB



## Level 2 Report

science and  
technology

Sales	Sales \$	Sales %	Ind Avg Sales \$	Ind Avg Sales %	\$ Difference	% Difference
Metal Labor Sales	\$600,000	30.00 %	\$562,832	28.14 %	\$37,168	6.60 %
Paint Labor Sales	\$375,000	18.75 %	\$356,110	17.81 %	\$18,890	5.30 %
Detail Labor Sales	\$10,000	0.50 %	\$9,995	0.50 %	\$5	0.05 %
<b>Mechanical Labor Sales</b>	<b>\$15,000</b>	<b>0.75 %</b>	<b>\$14,219</b>	<b>0.71 %</b>	<b>\$781</b>	<b>5.49 %</b>
Other Labor Sales	\$80,000	4.00 %	\$62,622	3.13 %	\$17,378	27.75 %
Total Labor Sales	\$1,080,000	54.00 %	\$1,005,779	50.29 %	\$74,221	7.38 %
Parts Sales	\$700,000	35.00 %	\$730,265	36.51 %	-\$30,265	-4.14 %
Material Sales	\$170,000	8.50 %	\$165,954	8.30 %	\$4,046	2.44 %
Sublet Sales	\$50,000	2.50 %	\$43,291	2.16 %	\$6,709	15.50 %
Sales Allowances	\$0	0.00 %	\$1,091	0.05 %	-\$1,091	-100.00 %
Miscellaneous Sales	\$0	0.00 %	\$53,619	2.68 %	-\$53,619	-100.00 %
<b>Total</b>	<b>\$2,000,000</b>	<b>100.00 %</b>	<b>\$2,000,000</b>	<b>100.00 %</b>	<b>\$0</b>	<b>0.00 %</b>

FIG. 11EA

Costs	Cost \$	Cost %	Ind Avg Cost \$	Ind Avg Cost %	Avg Cost %	\$ Difference	% Difference
Metal Labor Costs	\$300,000	15.00 %	\$235,204	11.76 %	\$64,796	27.55 %	
Paint Labor Costs	\$130,000	6.50 %	\$151,097	7.55 %	-\$21,097	-13.96 %	
Detail Labor Costs	\$5,000	0.25 %	\$9,313	0.47 %	-\$4,313	-46.31 %	
Mechanical Labor Costs	\$5,000	0.25 %	\$10,147	0.51 %	-\$5,147	-50.72 %	
Other Labor Costs	\$30,000	1.50 %	\$83,299	4.16 %	-\$53,299	-63.99 %	
Total Labor Costs	\$470,000	23.50 %	\$489,059	24.45 %	-\$19,059	-3.90 %	
Parts Costs	\$600,000	30.00 %	\$543,165	27.16 %	\$56,835	10.46 %	
Material Costs	\$100,000	5.00 %	\$126,595	6.33 %	-\$26,595	-21.01 %	
Sublet Costs	\$35,000	1.75 %	\$35,054	1.75 %	-\$54	-0.15 %	
Miscellaneous Costs	\$0	0.00 %	\$38,264	1.91 %	-\$38,264	-100.00 %	
Total	\$1,205,000	60.25 %	\$1,232,138	61.61 %	-\$27,138	-2.20 %	
Gross Profit	\$795,000	39.75 %	\$767,862	38.39 %	\$27,138	3.53 %	

FIG. 11EB

## Overview of Shop Performance vs. Industry Benchmarks

Account Categories	Shop Numbers	Industry Average	Top 25% of Industry	Difference from Ind Avg
<b>Gross Profit Margins</b>				
Body Labor	50.00 %	58.21 %	60.95 %	-8.21 %
Paint Labor	65.33 %	57.57 %	61.37 %	7.76 %
Total Labor	56.48 %	51.38 %	60.10 %	5.11 %
Materials	41.18 %	23.72 %	31.70 %	17.46 %
Parts	14.29 %	25.62 %	32.80 %	-11.34 %
Total Gross Profit	39.75 %	38.39 %	44.05 %	1.36 %
Net Profit	NA	3.34 %	9.51 %	NA
<b>Labor Efficiency</b>				
Body Labor	133.33 %	161.00 %	187.00 %	-27.67 %
Paint Labor	173.91 %	163.00 %	193.00 %	10.91 %
Closing Ratio	60.00 %	68.70 %	78.80 %	-8.70 %
Sales per Square Feet	115.67	184.00	309.00	-68.33
Sales per Staff	\$400,000	\$319,069	\$398,836	\$80,931

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**FIG. 11EC**



## Overhead Cost Information

science  
and  
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<b>Management Wages</b>	135000	<b>Insurance</b>	38000
<b>Sales Wages</b>	25000	<b>Interest</b>	14000
<b>Office Wages</b>	120000	<b>Misc. Taxes</b>	15000
<b>Product Support Wages</b>	50000	<b>Office Supplies/Postage</b>	17000
<b>Accounting Fees</b>	6000	<b>Laundry Uniforms</b>	4000
<b>Advertising/Promotions</b>	20000	<b>Leases &amp; Rentals</b>	17000
<b>Amortizations</b>	1000	<b>Licenses &amp; Permits</b>	3000
<b>Auto/Truck Expenses</b>	1	<b>Professional Fees</b>	13000
<b>Bad Debts</b>	2000	<b>Building Rent</b>	70000
<b>Bank Charges</b>	2000	<b>Repairs &amp; Maintainence</b>	16000
<b>Computer Expenses</b>	3000	<b>Small Tool Replacement</b>	7000
<b>Depreciation</b>	33000	<b>Telephone</b>	9000
<b>Donations/Charity</b>	1000	<b>Travel</b>	5000
<b>Dues/Subscriptions</b>	5000	<b>Utilities</b>	27000
<b>Employee Education</b>	5000	<b>All Other Overhead</b>	24000
<b>Entertainment</b>	6000	<b>Misc. Income</b>	-4000

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FIG. 11F



## Level 3 Report

	Overhead Expenses	Overhead \$	Overhead %	Average Overhead \$	Average Overhead %	\$ Difference	% Difference
Management Wages	\$135,000	6.75 %	\$134,952	6.75 %	\$48	0.04 %	
Sales Wages	\$25,000	1.25 %	\$25,166	1.26 %	-\$166	-0.66 %	
Office Wages	\$120,000	6.00 %	\$121,723	6.09 %	-\$1,723	-1.42 %	
Product Support Wages	\$50,000	2.50 %	\$50,216	2.51 %	-\$216	-0.43 %	
Total Staff Wages	\$330,000	16.50 %	\$332,056	16.60 %	-\$2,056	-0.62 %	
Accounting Fees	\$6,000	0.30 %	\$5,899	0.29 %	\$101	1.71 %	
Advertising/Promotion	\$20,000	1.00 %	\$20,039	1.00 %	-\$39	-0.19 %	
Amortizations	\$1,000	0.05 %	\$966	0.05 %	\$34	3.55 %	
Auto/Truck Expenses	\$1	0.00 %	\$7,208	0.36 %	-\$7,207	-99.99 %	
Bad Debts	\$2,000	0.10 %	\$2,142	0.11 %	-\$142	-6.64 %	
Bank Charges	\$2,000	0.10 %	\$2,531	0.13 %	-\$531	-20.97 %	
Computer Expenses	\$3,000	0.15 %	\$2,941	0.15 %	\$59	2.01 %	
Depreciation	\$33,000	1.65 %	\$33,052	1.65 %	-\$52	-0.16 %	
Donations/Charity	\$1,000	0.05 %	\$1,382	0.07 %	-\$382	-27.63 %	
Dues/Subscriptions	\$5,000	0.25 %	\$4,897	0.24 %	\$103	2.11 %	
Employee Education	\$5,000	0.25 %	\$4,414	0.22 %	\$586	13.28 %	
Entertainment	\$6,000	0.30 %	\$6,376	0.32 %	-\$376	-5.90 %	
Insurance	\$38,000	1.90 %	\$37,900	1.90 %	\$100	0.26 %	
Interest	\$14,000	0.70 %	\$13,690	0.68 %	\$310	2.26 %	
Misc. Taxes	\$15,000	0.75 %	\$15,441	0.77 %	-\$441	-2.86 %	
Office Supplies/Postage	\$17,000	0.85 %	\$16,716	0.84 %	\$284	1.70 %	

FIG. 11GA

<b>Laundry/Uniforms</b>	\$4,000	0.20 %	\$3,728	0.19 %	\$272	7.30 %
<b>Leases &amp; Rentals</b>	\$17,000	0.85 %	\$17,043	0.85 %	-\$43	-0.25 %
<b>Licenses &amp; Permits</b>	\$3,000	0.15 %	\$2,655	0.13 %	\$345	12.99 %
<b>Professional Fees</b>	\$13,000	0.65 %	\$13,128	0.66 %	-\$128	-0.98 %
<b>Building Rent</b>	\$70,000	3.50 %	\$70,559	3.53 %	-\$559	-0.79 %
<b>Repairs &amp; Maintenance</b>	\$16,000	0.80 %	\$15,718	0.79 %	\$282	1.80 %
<b>Small Tool Replacement</b>	\$7,000	0.35 %	\$6,510	0.33 %	\$490	7.53 %
<b>Telephone</b>	\$9,000	0.45 %	\$9,015	0.45 %	-\$15	-0.17 %
<b>Travel</b>	\$5,000	0.25 %	\$4,988	0.25 %	\$12	0.25 %
<b>Utilities</b>	\$27,000	1.35 %	\$26,693	1.33 %	\$307	1.15 %
<b>All Other Overhead</b>	\$24,000	1.20 %	\$23,654	1.18 %	\$346	1.46 %
<b>Total Miscellaneous</b>	\$367,001	18.35 %	\$373,012	18.65 %	-\$6,011	-1.61 %
<b>Misc. Income (negative)</b>	-\$4,000	-0.20 %	-\$3,976	-0.20 %	\$24	0.61 %
<b>Total</b>	\$693,001	34.65 %	\$701,092	35.05 %	-\$8,091	-1.15 %
<b>Net Profit</b>	\$101,999	5.10 %	\$66,770	3.34 %	\$35,229	52.76 %

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FIG. 1 1GB



## Hypothetical Analysis

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	Gross Profit Potential		
	GP %	GP \$	Increase GP \$
Current	39.8 %	\$795,000	\$0
Industry Avg *	46.2 %	\$923,609	\$128,609
Top 25% **	48.8 %	\$975,300	\$180,300

### Impact of Efficiency on Labor Sales Potential

	Current Metal Labor	Current Paint Labor	Avg Metal Labor	Avg Paint Labor
Clock Hours	15,000	6,900	15,000	6,900
Flag Hours	20,000	12,000	20,000	12,000
Proficiency	133.3 %	173.9 %	161.0 %	173.9 %
Labor Sales Rate \$ per Flag Hours	\$30.00	\$30.00	\$30.00	\$30.00
Labor Sales \$	\$600,000	\$375,000	\$724,500	\$360,000
Total Sales \$		\$2,000,000		\$2,224,615
Increase in Sales Potential				\$224,615

### Impact on Sales \$ by Improving Closing Ratio

	Closing Ratio	Sales \$	Increase Sales \$
Current	60.0 %	\$0	\$0
Industry Avg *	68.7 %	\$290,000	\$290,000
Top 25% **	78.8 %	\$626,667	\$626,667

FIG. 11H

**FIG. 12A**

The image shows a screenshot of a web-based customer menu system. At the top left is the DuPont logo, which consists of three interlocking circles and the word "DUPONT". To its right is the text "science and technology". The main title "Customer Menu" is centered above a horizontal line.

Below the title is a navigation bar with several links:

- Capacity Planner
- Sales Potential
- DRP Analyzer
- Layout Design and Planner
- Benchmarking

Under the heading "Business Valuation":

- Process Audit
- Paint Department Optimizer
- Sales and Production Tracker
- Team Pay Calculator
- Work In Process

Below these links is a link labeled "Edit Personal Info." followed by a vertical line.

At the bottom of the page are two sets of links:

On the left side:

- Purpose
- Background
- Data Needed for Input
- How to Use
- Understanding the Output
- Dupont Services

On the right side:

- Go To Business Valuation Application



## Business Valuation

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and  
technology

Business Valuation based on Net Present Value Method		Hypothetical Situations		
		Situation	Annual Profit	NPV 10yr
Annual Pre-Tax Profit \$	<input type="text" value="100000"/>	-20 %	\$80,000	\$854,310
Tax Rate %	<input type="text" value="32"/>	-10 %	\$90,000	\$902,965
Taxes \$	<input type="text" value="38,400"/>	Actual	\$100,000	\$951,619
Tax Depreciation \$	<input type="text" value="40000"/>	10 %	\$110,000	\$1,000,273
Owner Salary & Benefits \$	<input type="text" value="75000"/>	20 %	\$120,000	\$1,048,927
Replacing Owner Management \$	<input type="text" value="50000"/>			
Net Cash Flow \$	<input type="text" value="146,600"/>			
Inflation Rate %	<input type="text" value="4"/>			
Discount Rate %	<input type="text" value="10"/>			
Business Value NPV 10yr \$	<input type="text" value="951,619"/>			

The DuPont Solution

Calculate

Main Menu | Online Help

FIG. 12B

**FIG. 13A**

The screenshot shows a web-based application interface for Dupont. At the top left is the Dupont logo, which includes a stylized orange and blue circular graphic followed by the word "DUPONT". To its right is the company's name "DUPONT" in a large, bold, black sans-serif font, with "SCIENCE & TECHNOLOGY" written vertically below it. A decorative graphic of orange and blue circles is positioned above the company name.

The main title "Customer Menu" is centered at the top in a large, bold, black font. Below the title is a horizontal navigation bar with several links:

- Capacity Planner
- Sales Potential
- DRP Analyzer
- Run Charts
- Layout Design and Planner
- Benchmarking

Below this is another horizontal bar with the following links:

- Business Valuation
- Process Audit
- Paint Department Optimizer
- Sales and Production Tracker
- Team Pay Calculator
- Work In Process

At the bottom of the menu area is a link labeled "Edit Personal Info".

The main content area contains three sections:

- A section titled "Purpose" with links to "Background", "Data Needed for Input", "How to Use", and "Understanding the Output".
- A section titled "Services" with a link to "Dupont".
- A section titled "Go To Paint Department Optimizer Application" with a link to "Go To Paint Department Optimizer Application".

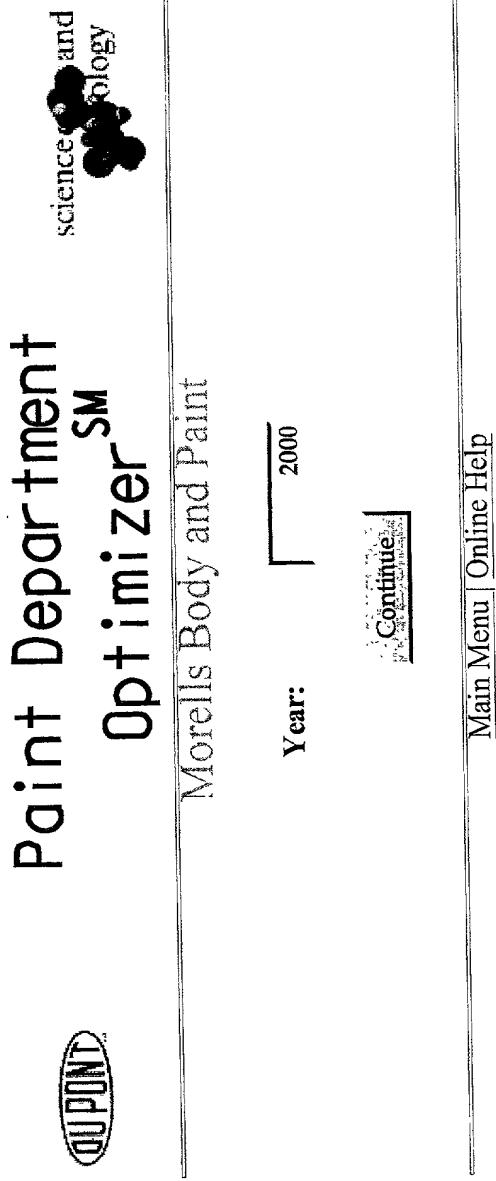


FIG. 13B



## P&M Calculator

	2000	Jan	Feb	Mar	Apr	May	Jun
Total Sales	267167	300000	225000	175000	200000	200000	200000
P & M Revenue	21594	31000	18000	12000	13500	15000	15000
P & M Purchases	20400	30000	18000	10800	12000	12000	13200
Completed ROs	184	200	150	145	160	160	165
Total \$ from SMU	3832	7200	3000	2160	1920	1920	2040
Total Mixes	230	260	200	85	100	100	110
Goal: Costs @ 5%	\$13,358	\$15,000	\$11,250	\$8,750	\$10,000	\$10,000	
G.P. Margin	5.53 %	3.23 %	0.00 %	10.00 %	11.11 %	12.00 %	

FIG. 13CA

	2000	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Sales		300000	245000	325000	315000	320000	249000	\$3,121,167
P & M Revenue		15000	20000	29000	27000	25000	20000	\$247,094
P & M Purchases		12000	14400	18000	14400	16800	12600	\$192,600
Completed ROs		184	184	257	248	256	190	2,323
Total \$ from SMU		4800	3832	7440	7200	7800	4200	\$55,424
Total Mixes		230	230	270	255	280	275	2,525
Goal: Costs @ 5%								\$156,058

G.P. Margin	\$15,000	\$12,250	\$16,250	\$15,750	\$16,000	\$12,450	22.05 %
	20.00 %	28.00 %	37.93 %	46.67 %	32.80 %	37.00 %	

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 [Summary Report](#) | 
 [Charts](#) |

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**FIG. 13CB**



## Summary Report

science and  
biology

Field Totals	Results
Shop Location	Morells Body and Paint
Periods with Data	12
Total Repair Orders	2,323
Total Sales	\$3,121,167
Total Paint & Material Revenue	\$247,094
Total Amount of Paint & Material Purchased	\$192,600
Total Number of Mixes (from Scale Mix Usage Report)	2,525
Total \$ Amount Spent While Mixing Material on the Scale	\$55,424
Analysis	Performance Measures
Paint & Material Gross Profit Margin	22.05 %
Paint & Material Costs as a % of Gross Sales	6.17 %
Paint & Material G.P. if costs were 5% of Gross Sales	36.84 %
Average \$ per RO	\$1,344
Dollar per Mix Average	\$21.95
	\$14 - \$17

FIG. 13DA

Conclusions	Ratings
Paint & Material Gross Profit	Average
Paint & Material Costs as a % of Gross Sales	Top 25%
Paint & Material G.P. if costs were 5% of Gross Sales	Top 25%
Dollar per Mix	Bottom 25%
Action Plan	Recommendations
Estimate Writing - Refinish Hours	Evaluate Estimate Process
Paint Shop Operations	Review DuPont's 6 Steps
	<a href="#">Update Data</a>   <a href="#">Charts</a>
	<hr/> <a href="#">Main Menu</a>   <a href="#">Online Help</a> <hr/>

FIG. 13DB



## Chart

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and  
Technology

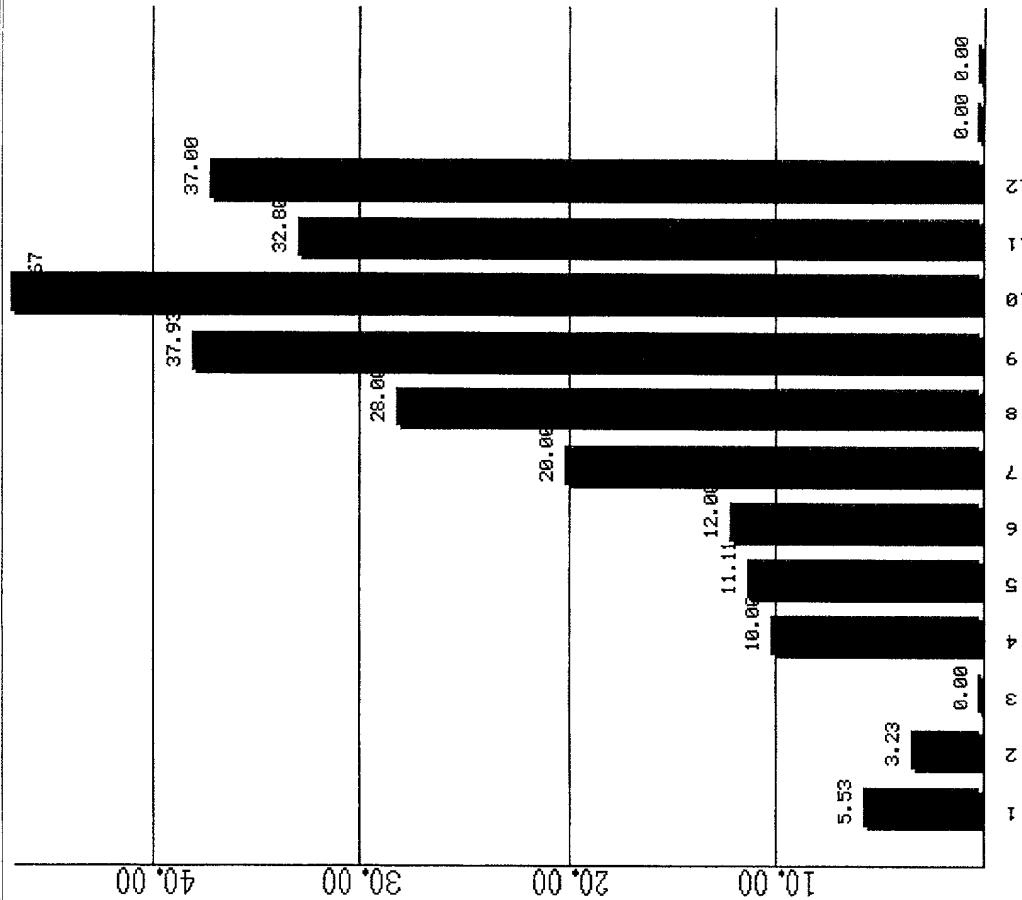


FIG. 13EA

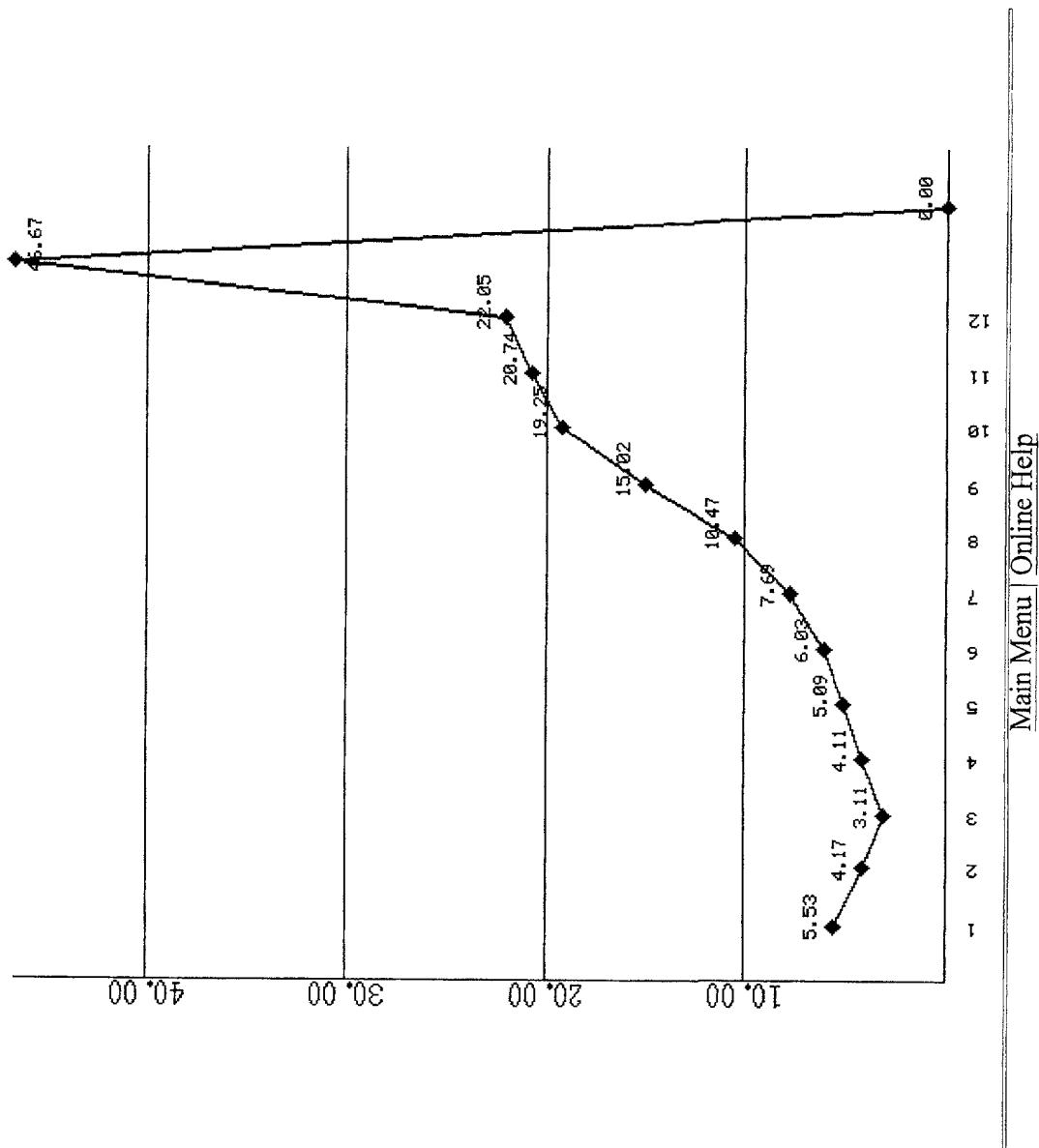


FIG. 13EB



## Customer Menu

science  
and  
technology

<a href="#">Capacity Planner</a>	<a href="#">Sales Potential</a>	<a href="#">DRP Analyzer</a>	<a href="#">Run Charts</a>	<a href="#">Layout Design and Planner</a>	<a href="#">Benchmarking</a>
<a href="#">Business Valuation</a>	<a href="#">Process Audit</a>	<a href="#">Paint Department Optimizer</a>	<a href="#">Sales and Production Tracker</a>	<a href="#">Team Pay Calculator</a>	<a href="#">Work In Process</a>
<hr/>					
<a href="#">Edit Personal Info</a>					
<hr/>					
<a href="#">Purpose</a>   <a href="#">Background</a>   <a href="#">Data Needed for Input</a>   <a href="#">How to Use</a>   <a href="#">Understanding the Output</a>   <a href="#">Dupont Services</a>					
<hr/>					
<a href="#">Go To Sales and Production Tracker Application</a>					
<hr/>					

FIG. 14A



## Sales Tracker

science  
and  
technology

Shop Name	Morells Body and Paint
Month	January
Year	[2000]
Change Month and/or Year	

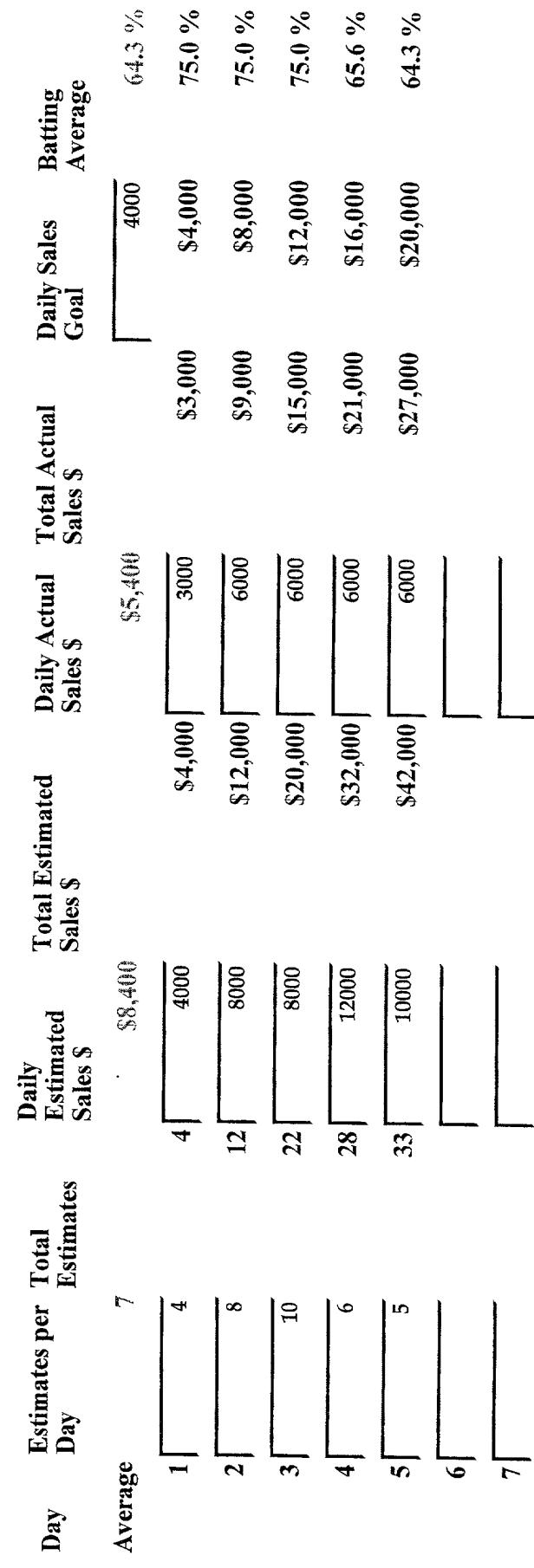


FIG. 14BA

卷之三

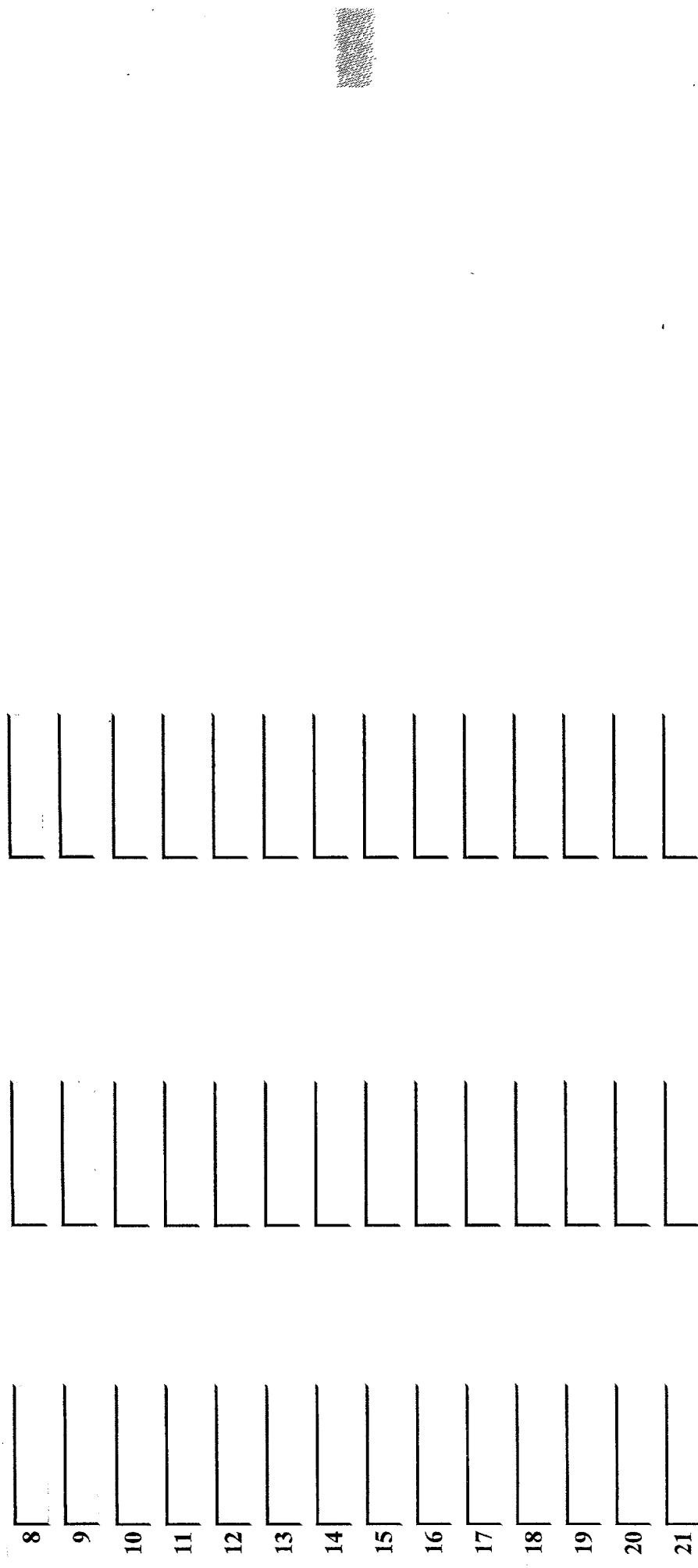


FIG. 14BB

22	
23	
24	
25	
26	
27	
28	
29	
30	
31	

[Main Menu](#) [Online Help](#)

**FIG. 14BC**



## Production Tracker

science and  
technology

Shop Name      Morells Body and Paint

Month      January

Year

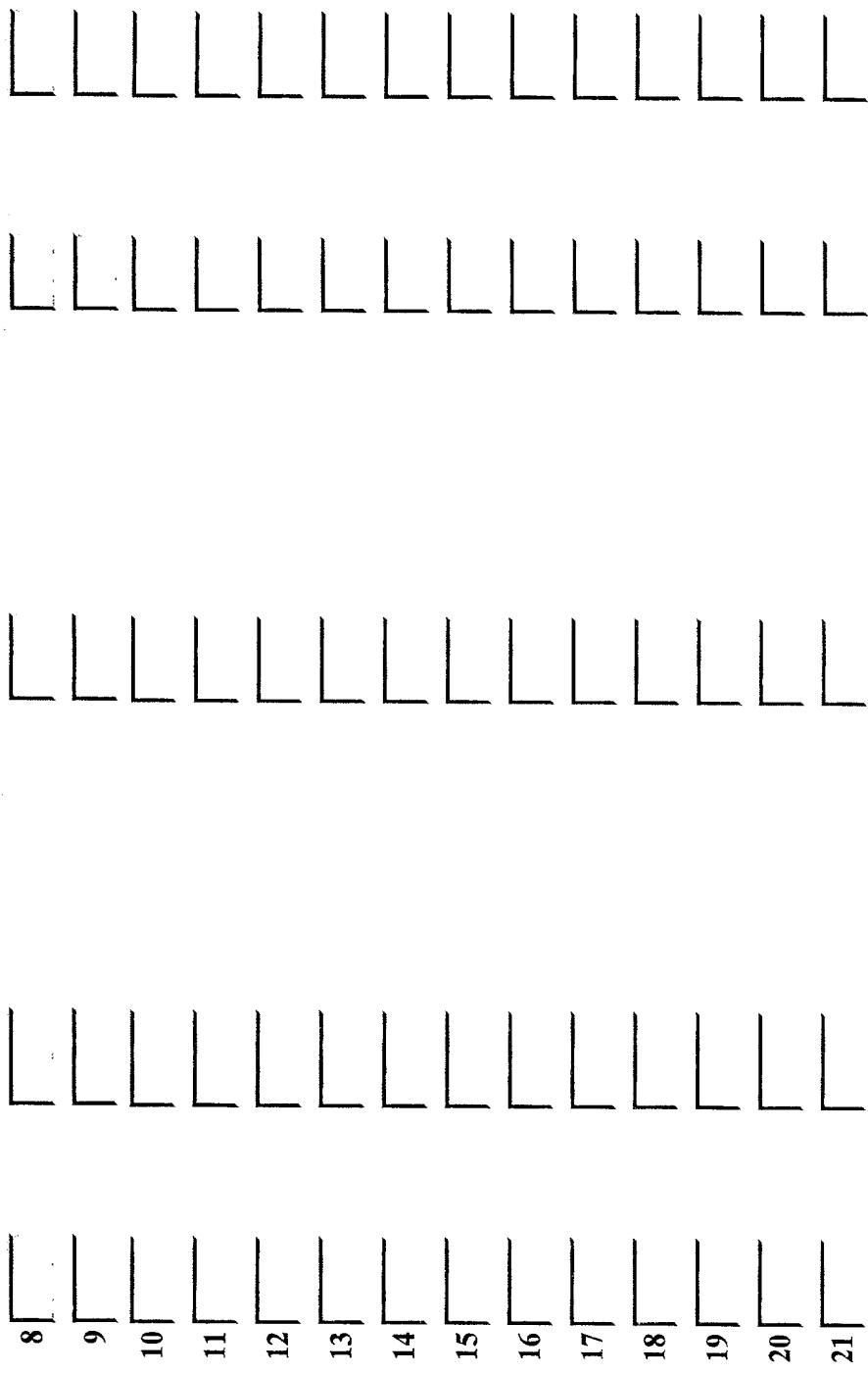
2000

Change Month and/or Year

Day	ROs / Day	Tot ROs	Flag Hrs	Tot Flag Hrs	Daily Flag Hr Goal	G.P. \$	Tot G.P.	G.P. %	Days Late	Avg Days Late	Daily Rev. \$	Tot Rev. \$	Daily Rev. \$ Goal
Average	4.07		51.7										
1	3	3	40	40	40	\$2,200			1	1.67	\$5,500		4000
2	6	9	40	80	40	\$1,200			1	0.33	\$3,000		\$4,000
3	5	14	75	155	80	\$2,400			3	0.50	\$600		\$8,000
4					120	\$3,600			1	0.20	\$7500		\$12,000
5													
6													
7													

FIG. 14CA

FIG. 14CB



**FIG. 14CC**

22	<input type="text"/>
23	<input type="text"/>
24	<input type="text"/>
25	<input type="text"/>
26	<input type="text"/>
27	<input type="text"/>
28	<input type="text"/>
29	<input type="text"/>
30	<input type="text"/>
31	<input type="text"/>

[Main Menu](#) [Online Help](#)

---

[Submit](#) [Sales Tracker](#)

**FIG. 15A**

The screenshot shows a web-based application interface for Dupont. At the top left is the Dupont logo, which includes a stylized globe icon and the text "DUPONT". To its right is a decorative graphic of dark blue and black circles. The main title "Customer Menu" is centered above a horizontal line.

The menu bar contains several links:

- Capacity Planner
- Sales Potential
- DRP Analyzer
- Run Charts
- Layout Design and Planner
- Benchmarking

Below the menu bar, there are two sections:

**Business Valuation**

- Process Audit
- Paint Department Optimizer
- Sales and Production Tracker
- Team Pay Calculator
- Work In Process

**Personal Information**

- Edit Personal Info

At the bottom of the page, there are three links:

- Purpose | Background | Data Needed for Input | How to Use | Understanding the Output | Dupont Services
- Go To Team PayCalculator Application



## Team Pay Calculator

Team Name	<input type="text" value="Lions"/> <input type="button" value="Change Team"/>	Skill Level \$/Flag Hr
Team Flag Hrs/Period	<input type="text" value="600"/>	a <input type="text" value="11.0"/>
Average Flag Hrs/RO	<input type="text" value="30"/>	b <input type="text" value="10.0"/>
Average \$/RO	<input type="text" value="2000"/>	c <input type="text" value="9.0"/>
Average Labor Rate \$/Flag Hr	<input type="text" value="\$7.91"/>	d <input type="text" value="8.0"/>
Overall Labor Gross Profit	<input type="text" value="75.3 %"/>	e <input type="text" value="7.0"/>
Projected Cars/Period	<input type="text" value="20.00"/>	f <input type="text" value="6.0"/>
Total Shop Revenue \$/Period	<input type="text" value="\$40,000"/>	g <input type="text" value="5.0"/>

FIG. 15BA

Technician Name	Skill Level	Clock Hours	Team Efficiency	Flag Hours	Pay Rate \$/ Hr	\$ per Pay Period	Insurance Rate \$/Hr	Labor Sales \$/Period
Mike	b <input checked="" type="checkbox"/>	66	196 %	129.4	\$10.00	\$1,294.12	32	\$4,141.18
Blake	g <input checked="" type="checkbox"/>	80	196 %	156.9	\$5.00	\$784.31	32	\$5,019.61
sam	d <input checked="" type="checkbox"/>	80	196 %	156.9	\$8.00	\$1,254.90	32	\$5,019.61
billy	c <input checked="" type="checkbox"/>	80	196 %	156.9	\$9.00	\$1,411.76	32	\$5,019.61
Total		306.0		600.0		\$4,745.10		\$19,200.00

[Add Technicians](#)

[Submit](#)

[Add Team](#)

[Summary Report](#)

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**FIG. 15BB**



## Add Technicians

science and  
technology

Submit

Edit Info

Main Menu | Online Help

FIG. 15C



## Team Add

science and  
Technology

### Skill Level \$/Flag Hr

a	<input type="text" value="11.0"/>
b	<input type="text" value="10.0"/>
c	<input type="text" value="9.0"/>
d	<input type="text" value="8.0"/>
e	<input type="text" value="7.0"/>
f	<input type="text" value="6.0"/>
g	<input type="text" value="5.0"/>

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**FIG. 15D**



## Summary

Name of Team	Lions	Tigers	Bears	Oh My	Total
Clock Hrs	306	160	160	320	946
Flag Hrs	600	1,500	1,600	1,700	5,400
Efficiency	196.1 %	937.5 %	1,000.0 %	531.3 %	570.8 %
Labor Costs	\$4,745.10	\$12,000.00	\$12,800.00	\$13,600.00	\$43,145.10
Labor Sales	\$19,200.00	\$48,000.00	\$51,200.00	\$54,400.00	\$172,800.00
# of Team Members	4	2	2	4	12
Team Flag Hrs/ Period	600	1,500	1,600	1,700	5,400
Average Flag Hrs / RO	30	30	30	30	30
Average \$/RO	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Average Labor Rate \$/ Flag Hr	\$7.91	\$8.00	\$8.00	\$8.00	\$7.99
Overall Labor Gross Profit	75.3 %	75.0 %	75.0 %	75.0 %	75.0 %
Projected Cars / Period	20	50	53	57	180
Total Shop Revenue \$/Period	\$40,000	\$100,000	\$106,667	\$113,333	\$360,000

[Edit Information](#)

[Main Menu](#) | [Online Help](#)

**FIG. 15E**



## Customer Menu

science and  
technology

Capacity Planner	Sales Potential	DRP Analyzer	Run Charts	Layout Design and Planner	Benchmarking
Business Valuation	Process Audit	Paint Department Optimizer	Sales and Production Tracker	Team Pay Calculator	Work In Process
<a href="#">Edit Personal Info</a>					
<a href="#">Purpose</a>   <a href="#">Background</a>   <a href="#">Data Needed for Input</a>   <a href="#">How to Use</a>   <a href="#">Understanding the Output</a>   <a href="#">Dupont Services</a>					
<a href="#">Go To Process Audit Application</a>					

FIG. 16A



# Score

science and  
technology

Click on a category to change its ratings.

Shop Process Area	Score
Detail	81.7 %
Estimating	50.2 %
General Management	52.4 %
Maintainence	45.6 %
Marketing	93.3 %
Parts Management	80.0 %
Post Delivery	65.5 %
Primer	53.6 %
Production Management	40.0 %
Reception	57.5 %
Refinish	57.5 %
Body Repair	60.0 %
Safety	67.0 %
Vehicle Delivery	72.3 %

[View Graphs](#)

[Conclusions](#)

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FIG. 16B



## Detail

- | 1   | 2                                   | 3                                   | 4                        | 5                        |
|---|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| <input type="checkbox"/>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is all masking removed from vehicle?                                    |                                     |                                     |                          |                          |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Is vehicle inspected for paint defects, overspray and refinish quality? |                                     |                                     |                          |                          |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Do the detailers perform paint defect removal (dust nibs, runs)?        |                                     |                                     |                          |                          |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Is paint defect removal performed prior to vehicle wash?                |                                     |                                     |                          |                          |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Is defect removal initiated with 2000 grit, or finer, sandpaper?        |                                     |                                     |                          |                          |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Is polisher used after compounding?                                     |                                     |                                     |                          |                          |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Is glazing used after polishing?  |                                     |                                     |                          |                          |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Is there a designated/accepted procedure for washing the vehicle?       |                                     |                                     |                          |                          |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Does washing occur under a cover?                                       |                                     |                                     |                          |                          |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Are fluid levels topped off prior to engine wash?                       |                                     |                                     |                          |                          |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Are the engine and tires washed prior to the exterior of the vehicle?   |                                     |                                     |                          |                          |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the exterior of the vehicle washed from top to bottom?               |                                     |                                     |                          |                          |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Are washing towels/mitts free of contamination?                         |                                     |                                     |                          |                          |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Are there separate soap and rinse buckets?                              |                                     |                                     |                          |                          |
| <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Are chamois cloths used only for drying clean vehicles?                 |                                     |                                     |                          |                          |

FIG. 16BA1

- C C C C C Are any silicone products used for dressing?
- C C C C C Is the interior free of objects and loose debris prior to cleaning?
- C C C C C Are floor mats and ashtrays removed and cleaned?
- C C C C C Is the interior cleaned from top to bottom?
- C C C C C Is the air conditioner turned "on", and vents cleaned?
- C C C C C Are windows cleaned inside and out?
- C C C C C Is the trunk cleaned?
- C C C C C Is a detail quality inspection done?
- C C C C C Are all products and utensils specially designed for the task in which they are used?

Total: 81.7 %

**Conclusions:**

Paint inspection should be done on a regular basis

<a href="#">Submit</a>	<a href="#">Scores</a>	<a href="#">Graphs</a>	<a href="#">Conclusions</a>
<hr/>			
<a href="#">Main Menu</a>   <a href="#">Online Help</a>			

**FIG. 16BA2**



# Estimating

1	2	3	4	5	Inspection
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If the customer has an insurance appraisal, does the estimator use it verbatim?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the estimator record all of the customer's personal information?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the estimator record all of the vehicle information?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Make/Model/Year?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VIN/Production Date?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Options (air conditioning, power features, engine, leather, etc.)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the estimator determine referral information?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the estimator include the owner when conducting the estimate?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the estimator inspect from the point of impact inward?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is the estimate conducted in an area conducive for inspecting (lights, weather, lift access)?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the estimator ensure that required not-included operations are written into the estimate?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Access time?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Anti-corrosion rust resistant coatings
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Broken glass cleanup?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Detail?

FIG. 16BB1

- ☐ C C C C C Electronic components?
- ☐ C C C C C Frame Set-up?
- ☐ C C C C C Free up parts?
- ☐ C C C C C Measure and Identify?
- ☐ C C C C C Plug and finish holes?
- ☐ C C C C C Repair or align?
- ☐ C C C C C Rework parts?
- ☐ C C C C C Tar and grease?
- ☐ C C C C C Transfer time?
- ☐ C C C C C Gravel guard?
- ☐ C C C C C Special coating?
- ☐ C C C C C Featheredge damaged paint?
- ☐ C C C C C Removal of protective coatings?
- ☐ C C C C C Cover vehicle?
- ☐ C C C C C Color sand and buff?
- ☐ C C C C C Applying anti-corrosion materials
- ☐ C C C C C Color match or tinting?
- ☐ C C C C C Blending into adjacent panels?
- ☐ C C C C C Is the estimator careful to include only observable damage?
- ☐ C C C C C Does the estimator use a logical, standard method of estimating repair time?

## FIG. 16BB2

- Does the estimator use a logical, standard method of estimating frame damage?
- Does the estimator show expertise in operating the computer estimating software?
- Are entries entered in a logical order?

**Sub:** 36.3 %

### 1 2 3 4 5 Selling the Job

- Does the estimator print out a copy of the estimate for the customer and attach a bus. card?
- Does the estimator explain the details on the written estimate for the customer?
- Does the estimator attempt to sell the merits of the shop to the customer?
- Did the estimator inform the customer that only one estimate is necessary?
- Does the estimator use professional brochures and/or documents for a sales pitch?
- Is the customer invited to see the shop or take a shop tour?
- Does the estimator under promise – over deliver?
- Does the estimator ask for the customer's business?
- Does the estimator explain all warranty information?
- Does the estimator explain his duties as the customer's advocate?
- Does the estimator try to sell non-insurance repair work?

**Sub:** 100.0 %

**FIG. 16BB3**

**1 2 3 4 5** Customer is Sold

- Does the estimator help the customer to arrange for transportation?
  - Are the terms and conditions of the rental/courtesy vehicle explained?
  - Are the customer's insurance arrangements confirmed?
  - Does the estimator or receptionist assist in filling out documentation for rental?
  - Does the estimator determine customer's communication requirements regarding status?
  - Is a method of payment established?
  - Does the estimator confirm communication requirements and delivery date?
  - Is the payment method confirmed?
  - Does the estimator assist with the customer's claim preparation?
  - Does the estimator explain the customer's and the shop legal rights?
  - Does the estimator obtain the customer's written agreement to repair the vehicle?
- Sub:** 40.0 %
- 1 2 3 4 5** Customer not Sold
- Does the estimator give the customer a business card with contact info?
  - Is the customer provided with a copy of the estimate?
  - Is the customer provided with professional brochures?
- Sub:** 73.3 %

**FIG. 16BB4**

**1 2 3 4 5**

Follow-up-Sold Jobs

- C C C C C Does the estimator or receptionist prepare a RO folder?
  - C C C C C Is a copy of the RO disseminated to the appropriate departments?
  - C C C C C Does the estimator establish if an inspection or estimate is required of the insurer?
  - C C C C C If so, is an inspection arranged?
  - C C C C C Does the estimator insure that the vehicle is accessible (on lift, under cover, etc.)?
  - C C C C C Does the estimator obtain authorization from the insurer to begin repairs?
  - C C C C C Does estimator track the vehicle through the repair process?
  - C C C C C Does the estimator and receptionist record all details of conversations with the customer?
  - C C C C C Does the estimator and receptionist record all details of conversations with the insurer?
  - C C C C C Does the estimator record all details of significance concerning the repair of the vehicle?
  - C C C C C Does the estimator and/or receptionist contact the customer as per agreement?
  - C C C C C Are customer's calls handled professionally?
  - C C C C C Are RO Folders updated continuously?
- Sub:** **66.2 %**
- 1 2 3 4 5**
- Follow-up-Non Sold Jobs
- C C C C Are contacts called back within 48 hrs after estimate and is a sale attempted?

**FIG. 16BB5**

- C C C C Is there a formal sales pitch prepared for a call-back?
- C C C C Are call-back lists scrubbed regularly to take old estimates out of the sales cycle?
- C C C C Are non-sold customers mailed thank-you notes and/or marketing brochures?

Sub: 45.0 %  
Total: 52.3 %

**Conclusions:**

Estimator is not getting enough P-Page items

Submit	Scores	Graphs	Conclusions
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**FIG. 16BB6**



# General Management

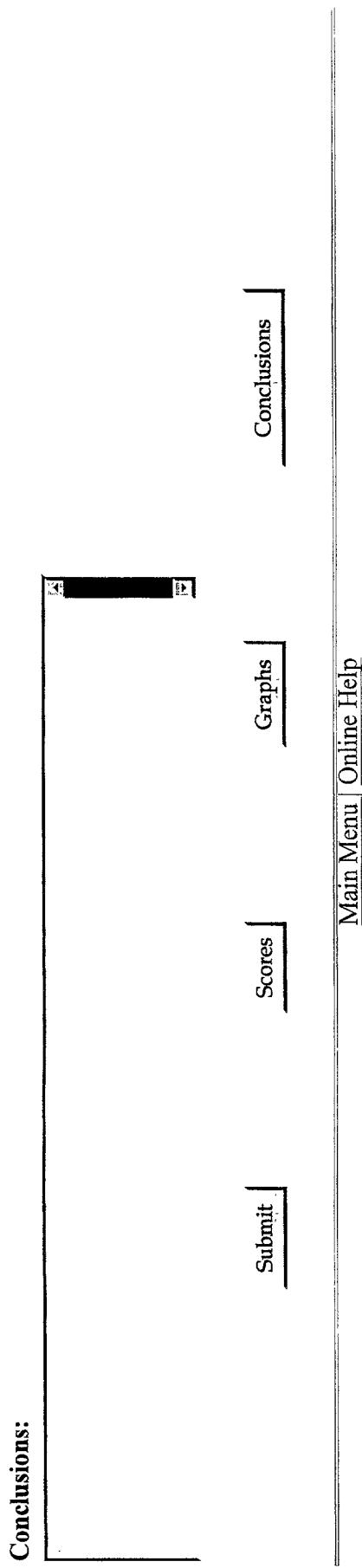
1	2	3	4	5	General	
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does the shop have job descriptions defined for Office/Production Staff?	
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does the shop have a procedures and/or policy manual?	
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does the shop track efficiencies of individuals in production?	
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does the shop routinely counsel employees on their performance?	
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does the shop have a mechanism for employee input?	
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does the shop practice an open door policy between employees and managers?	
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Is there an employee handbook?	
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Does the shop enforce a Drug and Alcohol Policy?	
<b>Sub:</b> 42.5 %						
1	2	3	4	5	Accounts Receivable	
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are customer and insurance payments kept in a safe, central location?	
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are copies of payments (checks, VISA, cash receipts) put into the RO?	
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are payments deposited into a bank account in a timely manner?	
<b>Sub:</b> 40.0 %						

FIG. 16BC1

## FIG. 16BC2

1	2	3	4	5	Accounts Payable
✓	✗	✗	✗	✗	Are all bills processed through a single person or department?
✓	✗	✗	✗	✗	Are bills paid on or before the vendor's credit terms specify?
✗	✗	✗	✗	✗	Does the Parts Manager work with the Accounts Payable Dept. to reconcile parts bills?
<b>Sut:</b>					
1	2	3	4	5	Metrics
✗	✗	✗	✗	✗	What is the shop's close ratio?
✗	✗	✗	✗	✗	What is the paint department's efficiency?
✗	✗	✗	✗	✗	What is the body department's efficiency?
✗	✗	✗	✗	✗	What is the shop's average total ticket amount?
✗	✗	✗	✗	✗	What is the shop's Paint and Materials cost to revenues %?
✗	✗	✗	✗	✗	What is the shop's Ticket to Supplement %?
✗	✗	✗	✗	✗	What is the shop's Parts Profit margin?
Sub:		71.4 %			
Total:		52.4 %			

**FIG. 16BC3**





## Maintainence



1 2 3 4 5

- ● ● ● ● Check Bake Cycle:
- ● ● ● ● Time Set for Purge – 2 MIN
- ● ● ● ● Time Set for Cool – 15 MIN
- ● ● ● ● Surf Temp of VEB – 140F
- ● ● ● ● Ambient Temp – 75F
- ● ● ● ● Check Cycle Time
- ● ● ● ● Check Filters in Booth and Prep Decks
- ● ● ● ● Check and Adjust air pressure balance of booth
- ● ● ● ● Check mixing machine
- ● ● ● ● Check mixing tops
- ● ● ● ● Check ColorNet updates
- ● ● ● ● Check world color book
- ● ● ● ● Inspect and calibrate scale

FIG. 16BD1

- C C C C C Check and Update alternate decks
- C C C C C Test air lines for contamination
- C C C C C Inspect moisture traps
- C C C C C Check fresh air supply
- C C C Is there a documented maintenance program for fixed shop equipment?

Total: 45.6 %

Conclusions:

Submit	Scores	Graphs
Conclusions		

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FIG. 16BD2

# Marketing

1 2 3 4 5

- ⚡ Does the shop have professional storefront signage?
- ⚡ Does the shop have visible signage
- ⚡ Does the shop use any form of advertising?
- ⚡ Does the shop track where leads are generated from (newspaper ads, TV, Radio, etc.)
- ⚡ Is the landscaping of the shops to the left and right of the shop professionally kept up?
- ⚡ Does the shop spend at least 2% of revenues on marketing?
- ⚡ Does the shop have a business plan that is updated periodically
- ⚡ Is the Marketing Plan a coordinated approach or done haphazardly?
- ⚡ Does the shop have a referral program?
- ⚡ Does the shop have a relationship with the Chamber of Commerce?
- ⚡ Does the shop have a relationship with the Rotary Club?
- ⚡ Does the shop support any community civic programs?
- ⚡ Is the shop a member of Drugs Don't Work or any other national organization?
- ⚡ Does the shop belong to any Collision Industry organization?

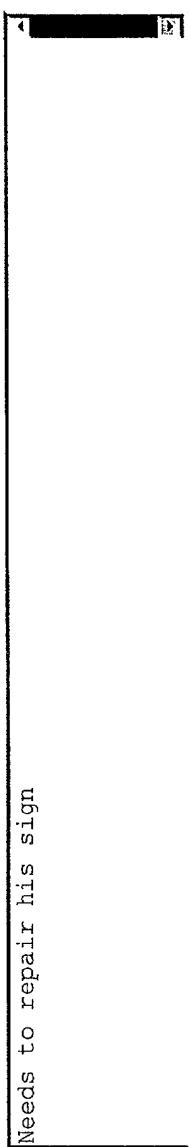
FIG. 16BE1

- Does the shop make sales calls to Parts Suppliers, Insurance Reps, and community Leaders?
- Does the shop finance deductibles?
- Does the shop have a partnership relationship with a local high school?
- Does the shop support any local organized sports teams?

Total: 93.3 %

Conclusions:

Needs to repair his sign



Submit

Scores

Conclusions

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FIG. 16BE2



## Parts Management

science and  
technology

1 2 3 4 5

- C C C C C Does the Parts Manager show expertise in the shop management computer system?
- C C C C C Can the Parts Manager extract the correct and complete parts order from the RO?
- C C C C C Does the Parts Manager order the necessary parts in a timely (same day) fashion?
- C C C C C Does the Parts Manager fax orders to vendors?
- C C C C C Does the Parts Manager have the expertise to accurately inspect received parts?
- C C C C C Are all parts inspected upon receipt?
- C C C C C Are all parts invoices checked to ensure completeness and accuracy?
- C C C C C Are parts processes meeting the production schedule?
- C C C C C Are parts labeled when received?
- C C C C C Does the Parts Manager communicate received parts to the Body Department ASAP?
- C C C C C Does the Parts Manager communicate cut-in requirements to the Paint Department?
- C C C C C Does the Parts Manager follow-up on parts cut-ins to insure timely completion?
- C C C C C Does the Parts Manager return wrong and/or unused parts in a timely fashion (weekly)
- C C C C C Is the RO updated immediately and properly when parts are received?

FIG. 16BF1

- Does the Parts Manager or estimator ensure proper parts discounts are applied?  
 Does the Parts Manager attempt to negotiate lower parts discounts occasionally?  
 Does the Parts Manager track non-received parts for ROs daily?  
 Does the Parts Manager participate in Production Meetings?  
 Does the Parts Manager communicate parts delays to the estimator?  
 Does the Parts Manager know the delivery schedule of vendors?  
 Does the Parts Manager keep invoices organized by RO for ticket closing?  
 Does the Parts Manager use Supplier Corrective Action Requests (SCARs)?  
 Is the Parts Room routinely secured?  
 Does Parts Manager maintain accountability for materials (urethane, body filler, sandpaper, etc.)?  
 Does Parts Manager maintain accountability for vehicle dimension manuals, Crash Guides, Frame Machine tools?

Total: 80.0 %

Conclusions:

<input type="button" value="Submit"/>	<input type="button" value="Scores"/>	<input type="button" value="Graphs"/>	<input type="button" value="Conclusions"/>
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**FIG. 16BF2**



## Post Delivery



### 1 2 3 4 5 Payment

- C C C C C Are all customer payment procedures finalized?
  - C C C C C Is the RO checked to insure insurance payments have been received?
  - C C C C C Is the RO checked to insure customer payments have been received?
  - C C C C C Is the proof of loss finalized?
  - C C C C C Is deductible and supplement information included on final invoice?
  - C C C C C Is the proof of loss sent to the insurance company?
  - C C C C C Does the shop maintain records of all credit card transactions?
  - C C C C C Does the shop insure that all pertinent data is listed on customer checks before acceptance?
  - C C C C C Does the shop proactively attempt to collect payments not made within 10 days?
  - C C C C C Is someone in the shop assigned to monitor legal issues stemming from payments?
- Sub:** 68.0 %
- ### 1 2 3 4 5 Closing out Tickets
- C C C C C Are all parts invoices collected and organized before attempting to close out ROs?
  - C C C C C Do discrepancies in parts invoice prices verses RO prices generate supplements?
  - C C C C C Are responsible individuals held accountable for damaged parts?

**FIG. 16BG1**

- Are responsible individuals held accountable for paint and material costs on redos?
- Is labor properly “flagged” to the appropriate employees?
- Does the RO match the accounting sales journal?
- Are discrepancies between RO and final bill followed up upon and resolved?

Sub: **60.0 %**

Customer Satisfaction Index

- Does Management insure that negative comments on CSS are acknowledged and rectified?
- Does the shop keep CSI records?
- Does the shop maintain a display of positive Customer Satisfaction Surveys?
- Does the shop maintain records of turn-backs?
- Does the shop trace turn-backs to responsible individuals and hold them accountable?

Sub: **68.0 %**

Total: **65.5 %**

Conclusions:

<input type="button" value="Submit"/>	<input type="button" value="Scores"/>	<input type="button" value="Graphs"/>	<input type="button" value="Conclusions"/>
Main Menu   Online Help			

**FIG. 16BG2**



## Primer

science and  
technology

### 1 2 3 4 5 Preparation

- C C C C Does the technician ensure the repair area is free of water-soluble contamination?
- C C C C Does the technician use the proper cleaning solvent?
- C C C C Does the technician wash the area before sanding/scuffing?
- C C C C Does the technician mask sensitive areas before sanding/scuffing?
- C C C C Does the technician carry the featheredge out until each coating is exposed at least  $\frac{1}{4}$  inch?
- C C C C Does the technician finish the featheredge in at least 240-grit for primer-surfacer?
- C C C C Does the technician scuff the topcoat around the featheredge for primer-surfacer application?
- C C C C Does the technician mask the repair area for primer-surfacer application?
- C C C C Does the technician mask to avoid tape lines in the primer?
- C C C C Does the technician wash the repair area before applying primer?
- C C C C Does the technician use pretreatment or etching primer?
- C C C C Does the technician mix all materials according to manufacturers' recommendations?
- C C C C Does the technician use the gun set-ups recommended for the product (air cap, needle)?
- C C C C Is the gun properly maintained?

**Sub:** 50.0 %

**FIG. 16GH1**

**1 2 3 4 5** Primer Application

Does the technician allow proper flash times?

Does the technician use proper primer build techniques?

More build in the center, less build at the edge?

50% overlap during application?

Proper build (medium-wet) per coat?

**Sub:** **60.0 %**

**1 2 3 4 5** Sanding Primer

Does the technician allow the recommended primer cure time before sanding?

Does the technician use the appropriate block to sand primer?

Does the technician use guide coat to verify proper sanding of primer?

**Sub:** **60.0 %**

**Total:** **53.6 %**

**Conclusions:**

[REDACTED]

[Submit](#)

[Scores](#)

[Conclusions](#)

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**F1G. 16BH2**



# Production Management

## 1 2 3 4 5 Scheduling

- C C C C Vehicles are scheduled based on prioritization system (DRPs, \$, Parts Availability, etc.)
- C C C C Are DRP jobs given higher priority than regular walk-in jobs?

## Are parts ordered in a timely fashion after a job is sold?

- C C C Does the estimator ensure that all necessary parts are ordered for the job?
- C C C Does the estimator check that all parts are received for completion of the job?
- C C C Does the estimator ensure that parts used (ordered) for the job are the correct quality?
- C C C Once a vehicle is scheduled, is the customer contacted with a promise date?
- C C C Are scheduled delivery dates accurate?

Sub: 40.0 %

## 1 2 3 4 5 Shop Communication

- C C C Does each workday begin with a production meeting?
- C C C Does the production meeting establish repair priorities for individual Bodymen?
- C C C Does the production meeting establish repair priorities for painters?
- C C C Does the production meeting communicate vehicle expected delivery dates?
- C C C Does the production meeting plan for the delivery of expectant vehicles?

**FIG. 16BJ1**

- Does the production meeting review work in progress status?
  - Does the production meeting review critical parts issues?
  - Does the estimator and receptionist take part in the meeting to stay informed of statuses?
  - Is someone responsible for cross-departmental communication?
    - Is cross-departmental communication effective?
  - Is the plan communicated during the production meeting posted for all to reference?
    - Does the shop respond to changes in the plan effectively?
  - Is Parts Delivery Status communicated to the Body Department?
  - Is a status board used to effectively communicate delivery dates, priorities locations of work?
  - Does the shop have a key control policy?
  - Is a copy of the RO maintained within the vehicle as it is repaired?

**Sub: 40.0 %**

1	2	3	4	5	Quality Control
<input type="checkbox"/>	Is there a QC checklist that is “attached” to a vehicle throughout the repair process?				
<input type="checkbox"/>	Are vehicles QC’d after the body department finishes repairs before it goes to paint?				
<input type="checkbox"/>	Are vehicles QC’d after paint prep is finished before it goes into the booth?				
<input type="checkbox"/>	Are vehicles QC’d after it comes out of the booth?				
<input type="checkbox"/>	Are vehicles OC’d after buildup, before detailing?				

FIG. 16BJ2

- C C C C C Are vehicles QC'd after detailing, before delivery?
  - C C C C C If the vehicle is not delivered the same day as the final detail, is it QC'd before delivery?
  - C C C C C Does the estimator (or person conducting delivery) assist in the QC?
  - C C C C C Is subcontracted work QC'd before accepting vehicle from subcontractor?
  - C C C C C Are cut-ins QC'd in the paint department before moving to the body department?
- Sub:** 40.0 %
- | 1                        | 2                        | 3                        | 4                        | 5                        | Supplement Generation  |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | Is there a procedure in place for Bodymen to communicate supplements to estimators?        |
| <input type="checkbox"/> | Does the estimator contact the insurer for approval of the supplement?                     |
| <input type="checkbox"/> | Does the estimator arrange for the insurer inspection if necessary?                        |
| <input type="checkbox"/> | Does the estimator insure vehicle availability so that the appraiser's time is not wasted? |
| <input type="checkbox"/> | Does the estimator confirm payment of supplements?   |
| <input type="checkbox"/> | Does the estimator call the customer for approval of supplement work if necessary?         |
| <input type="checkbox"/> | Does the estimator communicate supplement parts requests to the Parts Manager?             |
| <input type="checkbox"/> | Is the RO folder updated with supplement information?                                      |
- Sub:** 40.0 %
- Total:** 40.0 %

**FIG. 16BJ3**

Conclusions:

Submit	Scores	Graphs	Conclusions
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FIG. 16BJ4



## Reception



1 2 3 4 5 Layout

- C C C C Is the entrance to reception area well marked and easily accessible from business entryway?
- C C C C Does the reception area display an orderly appearance?

Does the reception area have a comfortable, clean seating area?

Does the reception Area have business credibility builders displayed?

Is there light, tasteful music playing?

Are there magazines available for customers to read while they are waiting?

Is there a TV in the reception area?

Sub: 51.4 %

1 2 3 4 5 Personnel

Do personnel in the Reception Area present a professional appearance?

Is there a dedicated receptionist?

Is the receptionist trained to answer phone?

Is the receptionist trained to converse about repair process?

Is the receptionist trained in insurance procedures?

Can the receptionist answer questions about current work status?

FIG. 16BK1

- C C C C Does receptionist have access to vehicle status information?  
 C C C C Does the receptionist answer the phone correctly?  
 C C C C Does the receptionist answer the phone within 3 rings?  
 C C C C Does the receptionist acknowledge walk-in customers within one minute?  
 C C C C Does the receptionist greet the customer as per training?  
 C C C C Does the receptionist find out the purpose of the customer's visit?  
 C C C C Does the receptionist offer the customer a refreshment?  
 C C C C Does the receptionist make the customer feel important?
- Sub:** 62.9 %
- |          |          |          |          |          |           |
|----------|----------|----------|----------|----------|-----------|
| <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | Screening |
|----------|----------|----------|----------|----------|-----------|
- C C C C Is there an initial questionnaire for the customer's pertinent information?  
 C C C C Does the customer fill out the form?  
 C C C C Does the receptionist fill out the form?  
 C C C C Does the questionnaire include insurance information?  
 C C C C Does the questionnaire specify if the customer a DRP?  
 C C C C Does the receptionist ask for the insurance company's appraisal?
- Sub:** 43.3 %

**FIG. 16BK2**



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### **Conclusions:**

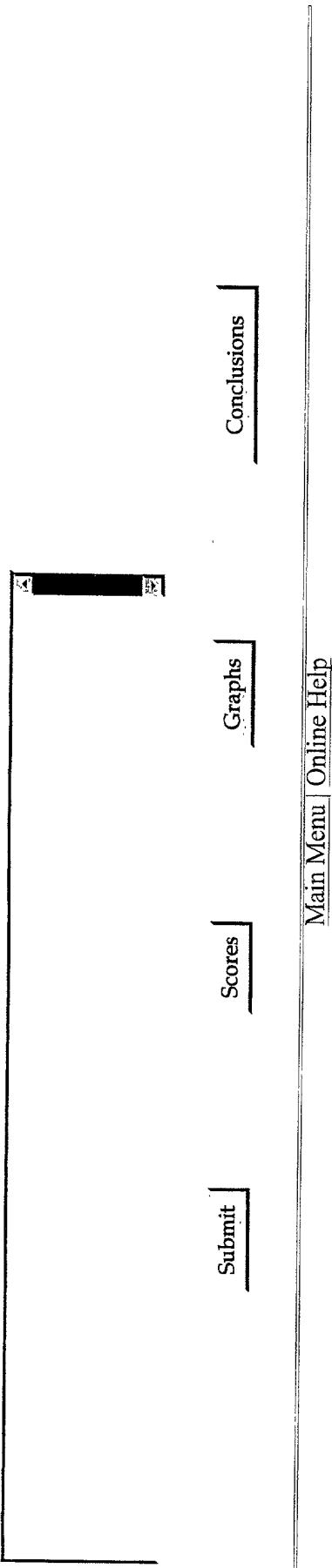


FIG. 16BK4



## Refinish

- | 1                     | 2                     | 3                     | 4                                | 5                                | Preparation  |
|-----------------------|-----------------------|-----------------------|----------------------------------|----------------------------------|--|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | Does the technician solvent wash before sanding/scuffing?  |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | Does the technician sand/scuff blend areas with 1200-1500 grit?                                      |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | Does the technician inspect blend area for gloss and cut-through?                                    |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | Does the technician ensure that the vehicle is masked to avoid tape edges?                           |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | Does the technician ensure that the vehicle is masked to avoid overspray?                            |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | Does the technician ensure that the vehicle is masked to avoid exposed (untaped) folds in the paper? |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/>            | Does the technician perform final blow of vehicle outside the booth?                                 |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> | Does the technician change vehicles immediately upon conclusion of cure/cool-down cycle?             |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> | Does the technician begin final preparation and repair procedures on new vehicle immediately?        |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> | Does the technician perform final wash and tack inside the booth?                                    |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> | Does the technician mix all materials according to manufacturers' recommendations?                   |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> | Does the technician use the gun set-ups recommended for the product (air cap, needle)?               |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> | Is the gun properly maintained?  |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> | Does the technician use value-shaded sealer?   |
- Sub: 60.0 %

FIG. 16BL1

1	2	3	4	5	Application
C	C	C	C	C	Does the technician allow proper flash times?
C	C	C	C	C	Does the technician tack paper (vehicle if necessary) between coats (sealer and base)?
C	C	C	C	C	Does the technician mix the appropriate amount of materials for the repair?
C	C	C	C	C	Does the technician use the proper adhesion promotion for mid-coats and blends?
C	C	C	C	C	Does the technician use materials appropriate for temperature and humidity?
C	C	C	C	C	Does the technician use appropriate spray techniques:
C	C	C	C	C	50% overlap?
C	C	C	C	C	Following wet edge?
C	C	C	C	C	Apply medium-wet coats?
C	C	C	C	C	Avoiding overloading lips of seams?
C	C	C	C	C	Does the technician use blending solution for blending basecoat?
C	C	C	C	C	Does the technician use the correct clearcoat for the type of repair?
C	C	C	C	C	Does the technician properly dispose of waste material?
					Sub: 55.4 %

FIG. 16BL2

**1 2 3 4 5**

C C C C Is the paint stored in a stable area?

C C C C Does the technician check surface, ambient and fluid temperature periodically?

C C C C Does the technician inspect the refinish for fix in the booth defects before unmasking?

C C C C Does the technician remove masking and tape properly?

C C C C Does the technician who painted the vehicle cut out trash, runs and sags?

**Sub: 56.0 %**  
**Total: 57.5 %**

**Conclusions:**

1	2	3	4	5
<input checked="" type="radio"/>				

[Submit](#) [Scores](#) [Graphs](#) [Conclusions](#)

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**FIG. 16BL3**



## Body Repair



1 2 3 4 5      Tear Down

C    C    C    C    C    Disconnects all wiring harnesses for panel prior to removing panel?

C    C    C    C    C    Removes bolts in alternating pattern to avoid stress damage to bolts/threads?

C    C    C    C    Stores reassembly parts in an organized, identifiable manner?

C    C    C    C    Does the technician inspect for supplement against the repair order?

C    C    C    C    Are removed panels disassembled for reassembly components?

C    C    C    C    Are damaged components (or components that cannot be removed) ordered immediately?

C    C    C    C    Are disassembled panels inspected for any remaining reassembly components?

**Sub:** 68.6 %

1 2 3 4 5      Panel Installation

C    C    C    C    Are bolts tightened in an alternating pattern to distribute stress correctly?

C    C    C    C    Does technician verify seams and gaps around the panel prior to final bolt tightening?

C    C    C    C    Does the technician use weld through primer on welded on parts?

C    C    C    C    Does the technician mask glass, trim and interior before welding?

C    C    C    C    Does the technician match the number and distribution of factory spot welds?

**FIG. 16BM1**

C Does the technician verify measurements with a frame ruler before welding?

C Does the technician finish weld-grinding and hammering marks with body filler?

**Sub: 71.4 %**

**1 2 3 4 5 Body Filler**

C Does the technician remove decals, trim and glue residue before grinding?

C Does the technician solvent wash the area before grinding?

C Does the technician verify the integrity of welds on body-filler panels?

C Does the technician straighten the metal before applying body filler?

C Does the technician inspect the repair area for high spots in the sheet metal before filling?

C Does the technician mix the body filler in the correct ratio?

C Does the technician squeeze or “tint” air bubbles out of the filler repair area?

C Does the technician finish the shape and contour of the filler to the panel in 80-grit?

C Does the technician finish the filler repair area so that no filler overlaps the existing finish?

C Does the technician finish the filler repair area in 180-grit to a proper featheredge?

C Does the technician inspect for and correct pinholes in the filler?

**Sub: 50.9 %**

**FIG. 16BM2**

1 2 3 4 5 Cut In Parts  
C C C C Does the technician communicate requirements for cut in parts to the paint department?  
C C C C Does the technician receive status information on cut in parts from the paint department?  
Sub: 40.0 %  
Total: 60.0 %  
Conclusions:

<input type="button" value="Submit"/>	<input type="button" value="Scores"/>	<input type="button" value="Graphs"/>	<input type="button" value="Conclusions"/>
<hr/>			
<a href="#">Main Menu</a>		<a href="#">Online Help</a>	

FIG. 16BM3



# Safety

## 1 2 3 4 5 Fire Inspection

- C C C C C Are evacuation diagrams posted throughout the shop?
  - C C C C C Is fire evacuation training documented?
  - C C C C C Are power cords properly grounded?
  - C C C C C Are there any power cords with exposed wiring?
  - C C C C C Are portable fire extinguishers provided in adequate number and type?
  - C C C C C Are fire extinguishers inspected in the proper time frame and noted on the tag?
  - C C C C C Are fire extinguishers mounted in readily accessible locations?
  - C C C C C Are fire doors unobstructed and protected against obstruction?
  - C C C C C Are fire doors in good operating condition?
  - C C C C C Is fire alarm tested annually?
  - C C C C C Is the fire department acquainted with shop location and hazards?
- Sub:** 78.2 %
- 1 2 3 4 5 Compressed Air Systems**
  - C C C C C Are compressors equipped with relief valves and gauges?
  - C C C C C Are air filters installed in compressor intake?

**FIG. 16BN1**

<input type="radio"/>	Are safety devices on compressor checked regularly?				
<b>Sub:</b>	<b>73.3 %</b>				
1	2	3	4	5	Exit Doors
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Do exit doors open in the direction of travel?
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Are windows that could be mistaken as exit doors made inaccessible?
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are all exit doors marked with appropriate EXIT signs?
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are exit doors unlocked during hours of operation?
<b>Sub:</b>	<b>65.0 %</b>				
1	2	3	4	5	Spraying Operations
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Is adequate ventilation assured before outside spraying operations?
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Is mechanical ventilation provided when spraying within an enclosed environment?
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Is the spraying conducted at least 20 feet from flames, sparks or ignition sources?
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Is approved respiratory equipment provided used during all spraying operations?
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Are No Smoking signs posted in the paint rooms, paint storage, and spray areas?
<b>Sub:</b>	<b>60.0 %</b>				
1	2	3	4	5	OSHA HotPoints
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Is a Written Respiratory Protection Program on location and available?
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are employees fully trained on Right to Know?
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Is a Written hazard communication Program on location and available?
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Are employees fit-tested annually in the proper use of their respirator?

**FIG. 16BN2**

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- |   |                          |                          |                          |                                     |                                     |  |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|--|
| Are MSDS for all hazardous materials in the shop present? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>   |
| Is a fire evacuation plan posted in the shop?             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>   |
| Is a Load Limit sign placed in overhead storage spaces?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>   |
| Is an Accident Log (Form 200) maintained?                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>   |
| Are hazardous containers labeled properly?                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>   |
| Is an inventory of hazardous materials maintained?        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>   |
| <b>Sub:</b> 58.0 %  | <b>1</b>                 | <b>2</b>                 | <b>3</b>                 | <b>4</b>                            | <b>5</b>                            | <b>Employer Posting</b>  |
|   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Is the required OSHA workplace poster(s) displayed in a prominent position?      |
|   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Are emergency telephone numbers posted where they can be easily found?           |
|   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | Are MSDS made readily available?   |
|   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | Is the summary of occupational illness and injuries posted annually in February? |
| <b>Sub:</b> 65.0 %  | <b>1</b>                 | <b>2</b>                 | <b>3</b>                 | <b>4</b>                            | <b>5</b>                            | <b>Safety and Health Program</b>   |
|   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Does the shop have an active safety and health program in operation?             |
|   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Is one person clearly responsible for the overall program?                       |
|   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Does the shop have a monthly safety meeting with written summaries?              |
|   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Does the shop have a procedure for employee safety complaints?                   |
| <b>Sub:</b> 70.0 %  |                          |                          |                          |                                     |                                     |  |

FIG. 16BN3

- 1 2 3 4 5** Personal Protective Equipment and Clothing
- Are protective goggles or face shields provided and worn?
- Are safety glasses required worn at all times in work areas?
- Are protective gloves, aprons and shields provided to employees?
- Is appropriate foot protection required in work areas?
- Are approved respirators provided for use where needed?
- Sub:** **64.0 %**
- Total:** **67.0 %**
- Conclusions:**

1

Submit | Scores | Graphs | Conclusions |

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**FIG. 16BN4**



## Vehicle Delivery



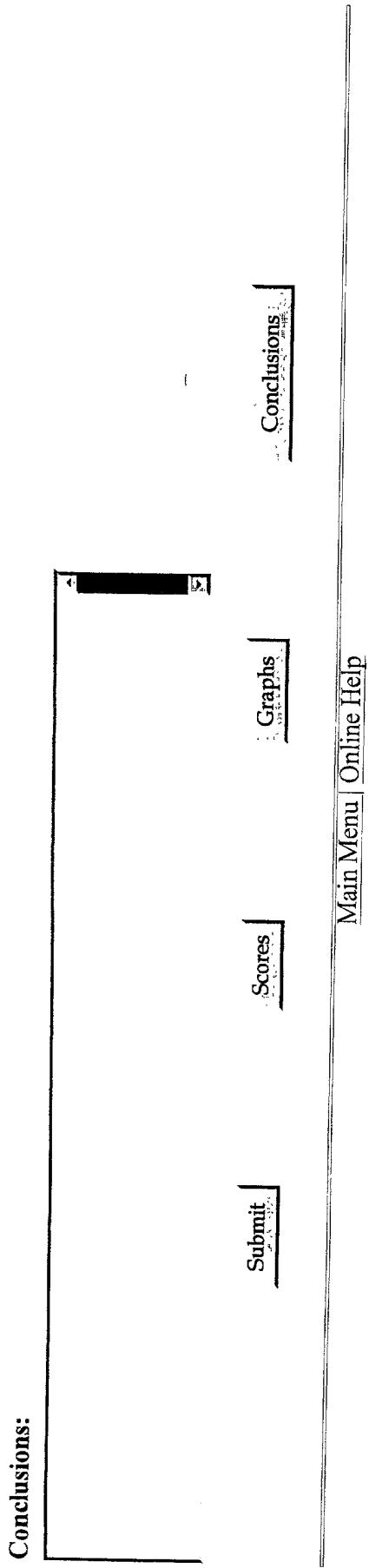
1 2 3 4 5

- C C C C C      Are customers called as a reminder that their vehicle is ready for delivery?
- C C C C C      Is every effort made to complete vehicle delivery before 5PM?
- C C C C C      Are all Quality Control inspections passed before vehicle delivered?
- C C C C C      Is the original estimate and supplements used to explain repairs made to the customer?
- C C C C C      Are all the charges on the final RO explained to the customer?
- C C C C C      Does the customer sign a detailed invoice before receiving their vehicle?
- C C C C C      Is payment taken in full before vehicle is delivered?
- C C C C C      Is there a standard procedure for inspecting the rental or courtesy car upon return?
- C C C C C      Is the procedure carried out?
- C C C C C      Is the customer allowed to inspect their vehicle in a well-lit, comfortable environment?
- C C C C C      Are customer objections dealt with immediately to “complete customer satisfaction”?
- C C C C C      Is the customer given a customer satisfaction survey to fill out?
- C C C C C      Does the shop have a come-back policy prioritizing come-backs?

Total: 72.3 %

**F1G. 16BP1**

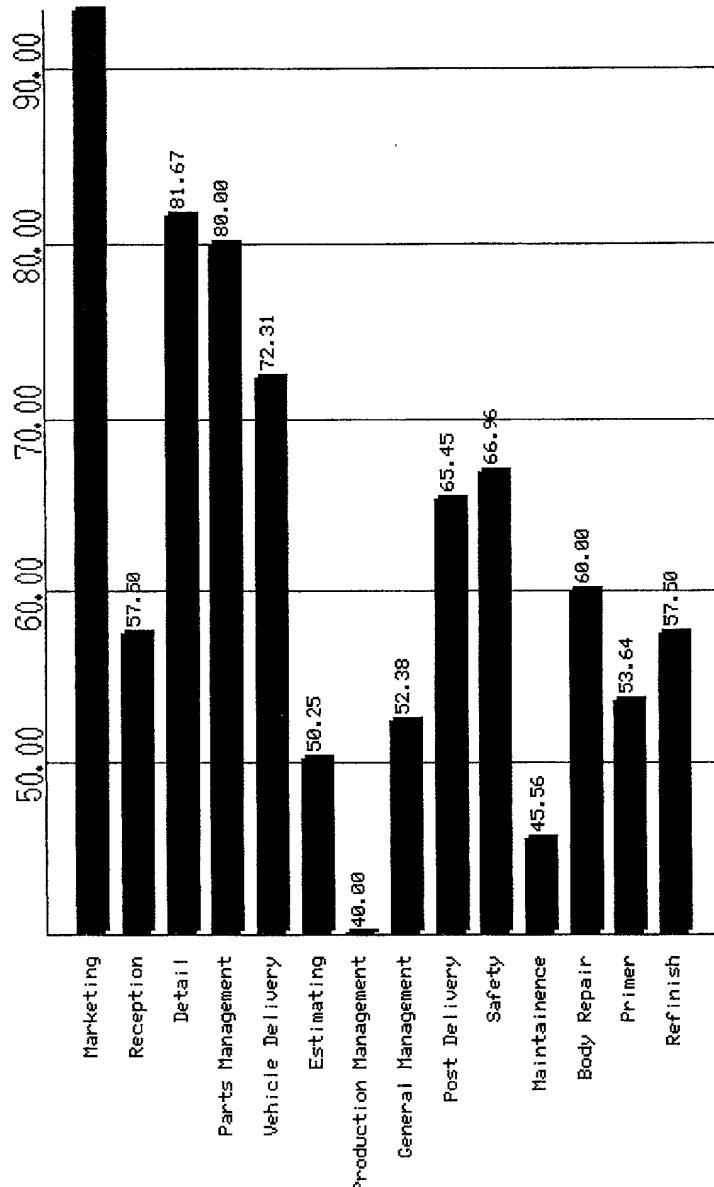
**FIG. 16BP2**





## Graph

science and  
biology



Conclusions:

Scores

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FIG. 16C



# Conclusions

science  
and  
technology

## Marketing

**Conclusions:**

## Reception

**Conclusions:**

## Estimating

**Conclusions:**

## Production Management

**Conclusions:**

## Parts Management

**Conclusions:**

**FIG.16DA**

## General Management

**Conclusions:**



## Vehicle Delivery

**Conclusions:**



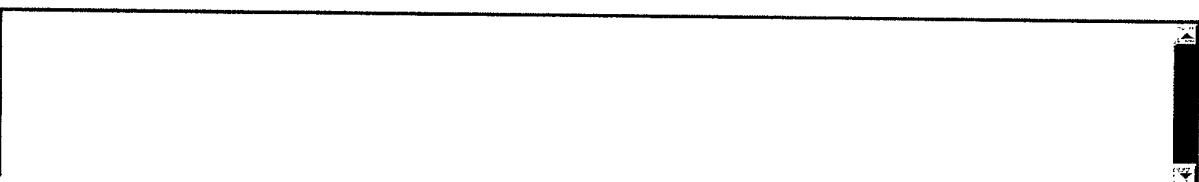
## Post Delivery

**Conclusions:**



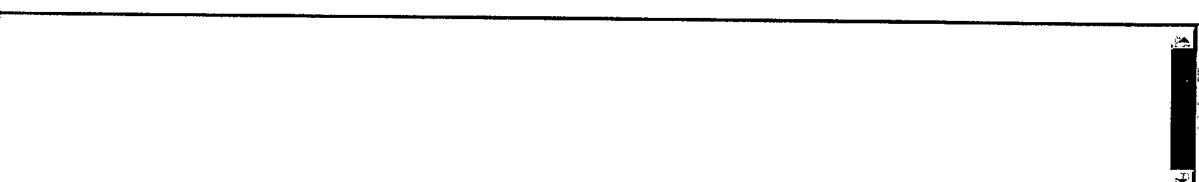
## Safety

**Conclusions:**



## Maintenance

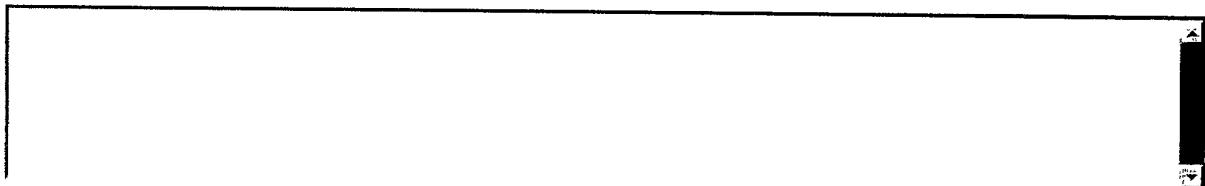
**Conclusions:**



**FIG. 16DB**

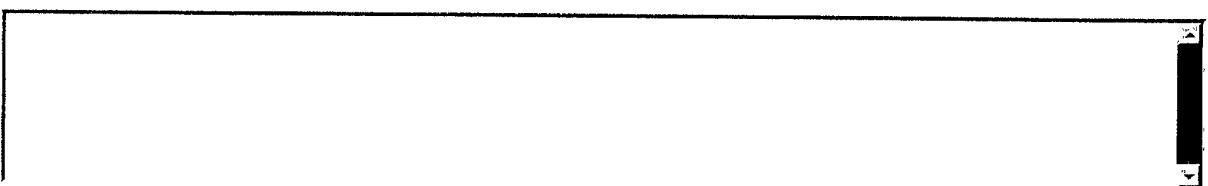
## Body Repair

**Conclusions:**



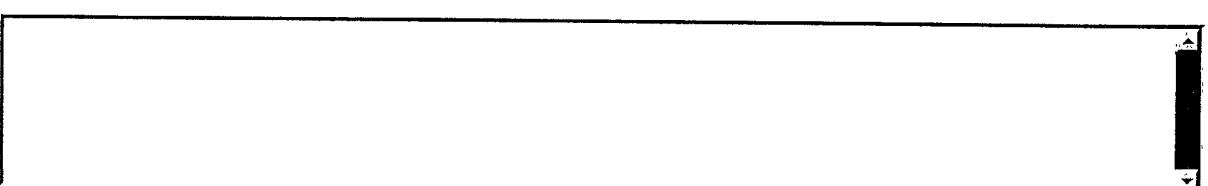
## Primer

**Conclusions:**



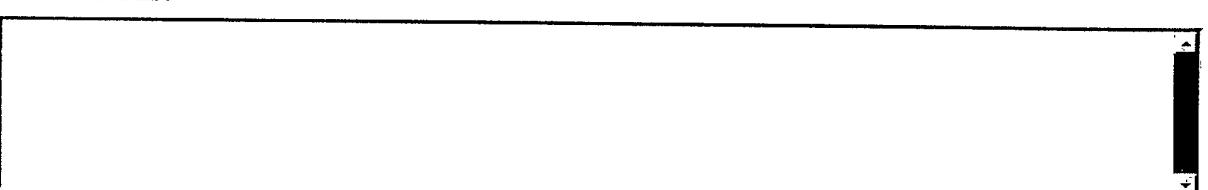
## Refinish

**Conclusions:**



## Detail

**Conclusions:**



Scores

Graphs

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FIG.16DC



## Customer Menu

science  
and  
technology

Capacity Planner	Sales Potential	DRP Analyzer	Run Charts	Layout Design and Planner	Benchmarking
Business Valuation	Process Audit	Paint Department Optimizer	Sales and Production Tracker	Team Pay Calculator	Work In Process
<hr/>					
<a href="#">Edit Personal Info</a>					
<hr/>					
<a href="#">Purpose</a>   <a href="#">Background</a>   <a href="#">Data Needed for Input</a>   <a href="#">How to Use</a>   <a href="#">Understanding the Output</a>   <a href="#">Dupont Services</a>					
<hr/>					
<a href="#">Go To Work In-Process Application</a>					
<hr/>					

FIG. 17A



## Work In Process Report

science  
and  
technology

RO #	Customer Name	Vehicle Type	Date in Date out	Promised Date Out	Projected Date Out	Last Called Customer	Current Location	\$ Volume	Insurance Co	A [D]					
123	Tom	Ford	5/10/01	5/15/01	5/17/01	5/15/01 Body		\$1500	All State	bob	\$700	6	12		
1	blake	toyota	1/1/00	1/1/00	2/1/00	1/1/00 Body		\$800	State Farm	jims	\$800	40	40		
400	Jim G	Toyota Avalon	9/19/00	9/22/00	9/20/00	9/20/00 Body		\$1500	All State	Joe	\$500	10	10		
3	blake	celica	1/1/00	1/1/00	1/1/00	1/1/00 Customer		\$750	State Farm	bob	\$750	40	40		
5	blake	celica	1/1/00	1/1/00	1/1/00	1/1/00 Customer		\$400	All State	kim	\$300	40	40		
6	blake	tercel	1/1/00	1/1/00	1/1/00	1/1/00 Customer		\$300	State Farm	kim	\$200	40	40		
7	mike	tercel	3/3/00	3/10/00	3/15/00	3/5/00 Frame		\$500	Farmers	joe	\$700	35	35		

Edit ROS

View Completed RO Report

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FIG. 17B



## Work In Process Info Add

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and  
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<b>RO #</b>	<input type="text"/>
<b>Customer Name</b>	<input type="text"/>
<b>Vehicle Type</b>	<input type="text"/>
<b>Date in</b>	<input type="text"/>
<b>Promised Date out</b>	<input type="text"/>
<b>\$ Volume</b>	<input type="text"/>
<b>Insurance Co</b>	<input type="text"/>
<b>Parts \$</b>	<input type="text"/>
<b>Body Hr</b>	<input type="text"/>
<b>Paint Hr</b>	<input type="text"/>
<b>Frame Hr</b>	<input type="text"/>
<b>Mech Hr</b>	<input type="text"/>
<b>Notes</b>	<input type="text"/>

[Submit](#)[Edit ROs](#)[View RO Reports](#)[View Completed RO Reports](#)

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FIG. 17C



## Work In Process Info Edit



Complete? RO #	Customer Name	Vehicle Type	Date in Promised Date Out	Projected Date Out	Last Called Customer	Current Location	\$ Volume Co	Insurance Technician	Current Parts \$
<input type="checkbox"/>	1 blake	toyota	1/1/00	1/1/00	2/1/00	1/1/00 Body		\$800 State Farm	jims
<input type="checkbox"/>	3 blake	celica	1/1/00	1/1/00	1/1/00	1/1/00 Customer		\$750 State Farm	bob
<input type="checkbox"/>	5 blake	celica	1/1/00	1/1/00	1/1/00	1/1/00 Customer		\$400 All State	kim
<input type="checkbox"/>	6 blake	tercel	1/1/00	1/1/00	1/1/00	1/1/00 Customer		\$300 State Farm	kim
<input type="checkbox"/>	400 Jim G	Toyota Avalon	9/19/00	9/22/00	9/22/00	9/20/00 Body		\$1,500 All State	joe
<input type="checkbox"/>	7 mike	tercel	3/3/00	3/10/00	3/15/00	3/5/00 Frame		\$500 Farmers	joe
<input type="checkbox"/>	123 Tom	Ford	5/10/01	5/15/01	5/17/01	5/15/01 Body		\$1,500 All State	bob

Submit

[View RO Report](#)

[View Completed RO Report](#)

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**FIG. 17D**



## Completed RO Report



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and  
biology

There are no completed ROs for this month and year. Please choose a different date.

Projected Date Out (Month/Year) June

2001 -

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FIG. 17E

**FIG. 17F**

<b>DUPONT</b>	
Science and Technology	
<b>Status Report</b>	
<b>Ro #</b>	<input type="text"/>
<b>Item ID #</b>	<input type="text"/>
<input type="button" value="Check Status"/>	
<hr/> <a href="#">Main Menu</a>   <a href="#">Online Help</a>	



## Status Report

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and  
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RO # [ ] 1  
Item ID # [ ] 1

[Check Status]

RO #	1
Customer Name	blake
Vehicle Type	toyota
Date in	1/1/2000
Promised Date out	1/1/2000
\$ Volume	800
Insurance Co	State Farm
Parts \$	800
Body Hr	40
Paint Hr	40
Frame Hr	40
Mech Hr	40
Notes	

FIG. 17G

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